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COLBY UNIVERSITY.

ANNUAL REPORTS.

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PORLAND.

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COLBY UNIVERSITY.

PRESIDENT'S REPORT.

TO THE BOARD OF TRUSTEES OF COLBY UNIVERSITY,

GENTLEMEN:—At your last annual meeting you voted that “The President be requested to present to the Trustees, *in print*, a reasonable time before the annual meeting, a statement of any changes, improvements, requests, or suggestions which he or the members of the Faculty may intend to submit in their respective annual reports.” I would accordingly respectfully submit the following as my report in full for the academic year 1885-1886, and the reports of the Faculty are given in part or in full, according to the requirement of the vote respecting them.

I. REVIEW OF THE YEAR.

1 Two honored members of the Board have died within the year, Prof. C. E. Hamlin, LL.D., and Hon. Wm. E. Wording, LL.D. Both were alumni of the college, and its warm and firm friends, and both had rendered it varied and valuable service. Dr. Hamlin had also been for twenty years one of its professors. Intimately acquainted with its needs, he was able, by his near residence, to render service such in nature and amount as makes his loss to it scarcely less than a disaster. The death of Rev. E. E. Cummings, D.D., also an alumnus, and from 1866-1881 a faithful member of the Board of Trustees, calls for mention in this connection. The removal of such friends and helpers imposes greater responsibility upon those that remain, and forces upon us the question whether others of like disposition and ability are coming forward to fill the vacant places.

2 In its work during the year the college has been true to its traditions and its distinctive character. It will, however, be seen from the statements of the professors that there has been something of change. The creation of the new department at the Board's last meeting made some modification inevitable, while the demands of the time have had their effect. The Faculty are, I think, a unit in the conviction that Colby University is to give that thorough and comprehensive training which the degree of A.B. has in the past represented, and to increase rather than diminish its significance. Not one of them believes in unlimited electives in a college; besides, they are agreed that if such a practice could anywhere be desirable, it is here impossible. I submit with this a schedule of the course as revised by the Faculty, to go into operation at the beginning of the next year, and trust it will so commend itself to the Board as to receive a ready indorsement. As printed it has, appended, the needed explanations.

3 Of students the total number of names in the catalogue is 118, of whom 112 are gentlemen, 16 ladies; by classes, Seniors 28, Juniors 34, Sophomores 31, Freshmen 25.

Four, whose names appear, have not been in at any time during the year, but there have been present two not catalogued, and of those absent one has been carrying forward the work of the class. All save one of the absences were due to ill health, and that one was caused by lack of funds. The states of Maine, New Hampshire, Massachusetts, Delaware, Mississippi, and Iowa, and the British Provinces of Quebec and New Brunswick, are represented. There has existed in a marked degree a spirit of study, good order, good fellowship, self-respect, and self-government. An unusual religious interest has prevailed, especially during the first half of the third term. The health of the students has been remarkably good, although, as in past years, there have been a few cases of serious interruption of study from various kinds of disability. The officers of the different athletic organizations have, without exception, co-operated heartily in the endeavor to keep physical exercise in its proper relation to college work, and to reduce to a minimum its interference with study. Some interference is inevitable where there are inter-collegiate games, but to prohibit these games would be unwise.

4 The members of the Faculty have all been present throughout the year, and in charge of their respective departments. Professor Foster was seriously ill several weeks of the third term. In the part of his report which is appended, he refers to this, and to the curtailment of his work to give place to the new department. This generous concession, voluntarily made, was of great value, and made comparatively easy the solution of a problem which would otherwise have been very perplexing. The "substitute," of whom Prof. Foster speaks, was his own son, John M. Foster, whose work gave eminent satisfaction, and did honor to sire, son, and college. The temporary illness of three other officers, and the temporary, needful absences of some, together with Prof. Foster's sickness, have caused unusual interruptions and irregularities in the work, especially of this term. The nature and amount of work done will appear in the reports of the several professors.

5 For the religious culture of the students the usual means have been used. Attendance at Chapel Service every morning and at a public preaching service once every Sabbath, has been required. The attendance at Chapel Service is reported by the class monitors for their respective classes, and at public worship on the Sabbath by each student for himself, at the close of a term. An occasional word of complaint against enforced attendance at church is heard. Sometimes it is urged that the requirement to attend creates the disinclination to attend, as though the law against crime were the proper cause of crime. While the law of the Board as to public worship remains, the Faculty will endeavor to execute it, though in the most liberal spirit and manner. Of the wisdom of the law there is no good reason to doubt.

6 A few *extras* have been connected with the college work in this year, as in previous years. There has been a continuance of occasional lectures by distinguished gentlemen from abroad. Joseph Cook, of Boston, lectured *On Ultimate America*; Rev. Henry S. Burrage, D.D., of Portland, *On the Campaign of 1863 in Eastern Tennessee*; Major H. S. Melcher, of Portland, *On the Battle of Gettysburg*; A. H. Briggs, Esq., of Boston, *On Hamet Caramanli*; Rev. Asa Dalton, D.D., of Portland, *On Pessimism*; and Rev. Thomas Hill, D.D., LL.D., of Portland, *On Knack and Knowledge*. These lectures were able and valuable, and attended not only by the students and

officers of the college, but by students of the Institute, and citizens of Waterville and vicinity. They have usually been in the College Chapel on Wednesday evenings, and the purpose has been not to allow them to interfere with college work. Sometimes, however, the Thursday morning recitation has been omitted because the time of preparation had been so largely consumed by the lecture of the previous evening.

Some musical training, also, wholly vocal, has been given during the present term by Warren C. Philbrook, A.M. The class was voluntary, and has been met once a week for eleven successive weeks. Mr. Philbrook reports that it consisted of those "who have considerable musical taste and a smattering of the science," that "the attendance was fair," that "a high order of music was sung at the rehearsals," and that "the work has not been wholly without fruit." He rendered a like service in the spring term of 1884-1885. There has seemed to be a need of some special effort to awaken and direct an interest in vocal music, and the results for good have, I think, been apparent in our chapel services. The slight expense incurred for the lectures and the musical instruction has been met by the college through the Prudential Committee.

7 The preparation of Coburn Hall for the Department of Mineralogy and Geology, and the purchase of the Briggs property, with the fitting up of the house for a Ladies' Hall, are adequately reported by the Treasurer. The amount of care and labor made necessary by these changes, in order to be ready for the opening of the fall term, was very great. The services of Dr. Lyford were in constant demand throughout the summer vacation. To his admirable judgment, thorough oversight, and efficient control is due the excellence and economy of the work done and the results secured. Nor were his services confined to the summer vacation. The demand for them has been frequent throughout the year, and they have been given without stint. Their value cannot be reckoned in terms of money. They deserve, and will doubtless have from the Board a special and fit recognition. Some further changes are desirable in both Coburn Hall and Ladies' Hall in continuation and completion of the work already accomplished. If the action of the Prudential Committee thus far is approved, the Board may prefer to trust to that committee what remains, rather than make a special appropriation.

Dr. Wadsworth's report is sufficiently full as to the provision made for his department. The year's experiment of Ladies' Hall has been eminently successful. The matron, Mrs. Mortimer, has justified the assurance of her fitness which led to her appointment. She has made of the Hall a genuine home for young ladies, and her management of its affairs has won the favor and respect of the community. The young ladies themselves appreciate the new provision for their wants, and testify to the addition which it makes to the charm and value of their college life. The matron makes her own terms with such of them as board with her, and has her rent free. Room-rent is the same at the Hall as for the young men in their dormitories, and for the partial furnishing of the rooms the college charges each student six dollars a year. No better plan seemed or seems feasible, at least for the present.

8 The admission of students to college from preparatory schools on certificates of the principals was briefly considered at the last meeting of the Board, and was referred, I think, to a committee consisting of Dr. Burrage and myself. Such admission has in previous years been mainly limited to our three academies, Coburn, Hebron, and

Houlton, and no further extension has been authorized by the Board. The Faculty, however, have felt justified in making further extension from time to time, and have assumed that the Trustees would wish them to exercise their discretion in such a matter. The practice of receiving on certificate has become somewhat general in New England and other colleges, and is growing in extent and favor. It is very liable to abuse, but with proper care on the part of a college Faculty, can be made advantageous and safe. As the Faculty of this college are agreed in granting to the preparatory schools and their graduates all concessions consistent with the best interests of the college, and are already acting on this plan, I would suggest that the Board leave this matter with them just as it is. Students thus received are always regarded as "on probation" during the fall term. Before its close they show whether they can go on with profit.

9 Our three academies have been visited by members of the Faculty, and the endeavor made to keep as close as practicable the connection between them and the college, and to unify the interests and work of all these institutions. Houlton has been visited by Dr. Wadsworth, who reports on it, and Hebron by Professors Warren and Small, and myself. The examinations of Coburn Classical Institute have been attended according to the plan of union. The year with them all has been one of prosperity and promise. Principal Sargent, by his enterprise, magnetic power, and generalship, has achieved at Hebron a success as signal as that which he had won at Freeport, and which led to his election. Every one who visits the school must agree with its Principal, Trustees, and Alumni that the present buildings are wretchedly inadequate, and that the erection of a new and ample building is an immediate and urgent need. This Board will not fail to encourage, in every practicable way, the movement already begun to provide such a building.

Principal Thomas has conciliated the favor and commands the respect of the citizens of Houlton and vicinity, and of the patrons of the academy under its former administration, and has proved himself the right man for the place. Every year makes more manifest the importance of Houlton Academy in our educational work.

The committee last year appointed by the Board "to confer with Dr. Hanson with power as to the best methods of enlarging and changing the methods of instruction, and with a view to have the same put into operation at the next term," (the autumn term, 1885-1886), consisted of Dr. Bakeman and myself, and agreed with Dr. Hanson that no radical change is at present practicable. The income of the Institute does not allow it. The expenditure authorized by the Board and since made has effected some improvement which may be carried forward by like expenditures from year to year. Extensive immediate changes cannot be made with the present limited teaching force, and the income does not admit an increase of this force. Meanwhile, the school as it is holds that place of proud pre-eminence which its merits long since secured to it. This pre-eminence must not be forgotten in our effort to make further improvement.

10 There exist two local associations of the Alumni of Colby University, the one that of Boston and vicinity; the other, that of Western New England. The former is the older and by far the larger. Its last meeting was pronounced "the largest and most interesting ever held," and was attended by three members of the Faculty, whose report of the college was received with evident gratification. These meetings foster and develop a genuine *esprit de corps*, and are of great service to our cause. The other

association is only two years old, and held its second meeting at Springfield, Mass., only a few weeks ago. Although at some sacrifice, I was present, and am confident that such sacrifice is not a loss. My hope is that a similar association will, at no distant day, be formed in this State, with headquarters at Portland. It would be an advantage rather than a detriment to the General Association of the Alumni, and promote rather than prevent the return of the sons of Colby to the old home on Commencement week.

11 By attendance at religious and educational conventions, associations, institutes, etc., and by addresses, lectures, and papers, members of the Faculty have tried to connect the college with the public. This has not greatly interfered with regular class work. The gain has been much in excess of the loss. My aim from the beginning has been to do and have done so much of this work as is needful to show that Colby is, in a good sense, both in this world and of it. We ought not to neglect either the internal or the external work. Both are essential. It would not harm the college even if members of the Faculty were occasionally to make a successful venture in authorship. Such influence in behalf of an institution cannot be over-estimated, and ought not to be despised.

II. THE FUTURE NEEDS.

1 The extension of Coburn Hall has long been recognized as a need of the college, and has been very fully considered. The question has been materially affected by the death of Abner Coburn. To erect a building with funds now in hand or assured by bequest would seem to be unwise, for these funds are all wanted as permanent endowment, and it ought to be possible to secure special gifts for the erection and proper fitting up of the new building. It, however, should not be forgotten that the need for the building grows every year more urgent, and that the requisite money ought soon to be found, given, and used. It is well known that an adequate equipment for teaching the Natural Sciences is extremely costly. Dr. Wadsworth's report suggests this, and shows that the college cannot afford to wait for a new building before making a very considerable outlay, in order to make available the teaching power now at its command.

2 A call for an increase in teaching force comes from the two reports by Prof. Hall. His statements as to the demands of the Modern Languages and of the Library are not too strong. The Elocution also, at present, is provided for from year to year by special arrangements. Doctor Smith recognizes the desirableness of an extension of his department, although he makes no specific recommendation. That it is desirable to have some competent officer to have charge of the physical health and culture of the students, is almost self-evident. If the funds allowed the creation and manning of a new department at once, it would be easy, probably, for the Faculty to agree what the department ought to be, and there would still be the present call for assistance in the Modern Languages, and for an officer of physical culture. Assistance in two or three other departments would probably be welcomed and profitable. I would suggest that the existing arrangement for the Elocution be continued for another year, and that the Faculty be constituted, in whole or in part, a Committee on Instruction, to consider the further needs of the college as to instruction, and to report at the next annual meeting of the Board; also with powers to secure at their

discretion, and under their direction, additional instruction for the year to come, at an expense not to exceed \$1,200. Under this should be included the employment of occasional lecturers, a teacher in music, etc.

3 Ten prizes of fifty dollars each are, by suggestion of Hon. J. Warren Merrill, and authority of the Board, offered to the class which shall next enter. Two of these prizes are for excellence in preparation for college, and two for excellence in the studies of each of the four years of the course. Mr. Merrill has made no offer for any subsequent class. The Faculty believe, with Mr. Merrill, that the ten prizes of \$50 each are better than five prizes of \$100 each. The prizes have obviously stimulated and improved scholarship. No appreciable evil seems to have resulted from them. That they are in various ways an advantage can hardly be questioned. I submit the matter to the Board for consideration.

4 The publication of a new general catalogue was last year authorized, but not required. The unusual expenditure of money for other objects, and some other considerations, led to the postponement of its publication. The subject calls for new attention and action.

5 A "Commission of Colleges of New England on Admission Examinations" was held at Harvard University on Friday and Saturday, April 9 and 10, 1886. Professor Taylor represented Colby as its delegate. This Commission adopted the following plan of organization:—

"I. This Commission shall be constituted by the appointment of one delegate from each college, to serve for three years. The first full term of service of the delegates shall begin as follows:—

From Amherst, Boston, Brown, and Colby, with September, 1886;

From Dartmouth, Harvard, Smith, Trinity, and Tufts, with September, 1887;

From Wellesley, Wesleyan, Williams, and Yale, with September, 1888.

The present delegates, or, in case of vacancy, delegates to be appointed from the several colleges, shall serve until the above dates.

II. The functions of this Commission shall be to consider and recommend to the several faculties such measures as the Commission may deem expedient to maintain and promote uniformity in the requirements for admission to college.

III. Full liberty of action is reserved to each faculty on all proposals made by the Commission.

IV. The Commission shall hold a stated meeting annually in the month of April, and such other meetings as it may deem necessary.

V. The Commission shall have power to appoint a permanent secretary, and to fix the amount of his salary.

VI. The Commission shall have power to provide for its expenses, including the traveling expenses of its members, by assessing each college in proportion to the size of its Freshman class last admitted; the total annual expenditure of the Commission, including the salary of the secretary, not to exceed six hundred dollars.

VII. The Commission shall have authority to admit delegates from other New England colleges, on their acceptance of the above conditions.

VIII. The assent of eight colleges shall be necessary for the establishment of the Commission.

On this plan, the assessment of Colby University for the present year would be about \$14."

It is for the Board to approve or disapprove of this organization as one in which we shall have part. The advantages of connection with it are apparently incidental. There seems to be no reason to fear that the Commission will work us harm, and, if it should, we can withdraw. As the expense is slight, and there is some obvious advantage from connection with the Commission, it may seem best to the Board to give its approval. The question is submitted.

6 The Art Department has been created and developed by Prof. Warren under favor of the Board, and with eminent success. That he may continue to develop it there should be assured to him a sum of not less than \$100 a year. A greater sum is needed. A generous provision for this department in the future would be a graceful and grateful recognition of the success achieved in the past.

7 The statements of the several professors, which the vote of the Board requires to be in print, are appended in their own language, as this method seems fairest to them. Calls for outlay of funds come from several. That of Prof. Small takes emphasis from the attendant offer. Professor Capen's department should have the usual appropriation. His renewed request for more room naturally connects itself with the question of the extension of Coburn Hall. The small class-rooms in Champlin Hall are quite too small for our present classes. The large ones are none too large if we are to have pure air and the best work. The erection of the new building will enable us to have suitable class-rooms.

8 For the degree of A.B. in course the Faculty recommend the members of the graduating class. Their names and residences are as follows: Byron Boyd, Linneus; Luther Crocker Bridgham, West Minot; Charles Corey Brown, Hodgdon; Wallace Erwin Bruce, Middletown, Del.; Judson Billings Bryant, Knox; Randall Judson Condon, Friendship; Leonard Lorenzo Dick, Limerick; Horatio Russ Dunham, North Paris; Fred Grant Dunn, Ashland; George Edgar Googins, Millbridge; Richard Alston Metcalf, Newcastle; Seldom Burden Overlock, Washington; George Perley Phenix, Deering; Sheridan Plaisted, Waterville; Ralph Howard Pulsifer, Waterville; Harry Lyman Putnam, Houlton; Thomas Jefferson Ramsdell, West Lubec; Albert Marshall Richardson, Hebron; Elisha Sanderson, South Berwick; Charles Porter Small, Portland; Harry Atherton Smith, Auburn; Irving La Forest Townsend, Waterville; Herbert Walter Trafton, Fort Fairfield; Stephen Elvoro Webber, Chesterville; John Ryder Wellington, Albion; Bessie Randall White, Somerville, Mass.; Julia Ella Winslow, St. Albans.

Colby University, June 17, 1886.

GEO. D. B. PEPPER.

REPORTS OF THE FACULTY.

I. EXTRACTS FROM REPORTS.

1 The Professor of Intellectual and Moral Science says: "The most important change in this department has been the conversion of the History of Philosophy from an elective into a required study, and its transference from the third to the second term. This is for various reasons a better arrangement. The text-books in Moral Science have this year been Calderwood's for Theoretic Ethics, and Janet's Elementary Treatise for Practical. Lectures on the Evidences of Christianity have been given partly in the second and partly in the third terms."

2 From Prof. Foster's report: "The course of study in the Greek Department, as arranged for the year just closed, differed little from that of the preceding year. Unfortunate circumstances, however, have somewhat interfered with the plan. At the beginning of the year it was found impracticable to make room for the new department by an equitable draft on the time allotted to the other departments, without a complete reconstruction of the course. It was suggested, however, that by a sacrifice of the Greek, the desired place could be made, without interfering at all with any other department. This suggestion was very readily adopted, and, thereby, the time of the Greek with the Junior class was reduced from five hours per week — as by the catalogue — to twenty-one hours for the term. This was very unpleasant to myself, as the study of the term, Greek Tragedy, is to me the most interesting of the Greek course. The work of the spring term was begun with three classes — a portion of the Seniors in elective Greek, the Sophomores and the Freshmen. In about ten days after the opening of the term, I was taken severely ill, and detained from the classroom for four weeks. For the first week the classes were kept employed with additional work in other departments. For the other three weeks a substitute was engaged who carried along, under my direction, the Senior and Freshman classes, and by an exchange of time with the Professor of Modern Languages, the Sophomores were employed in that department. Thus, but one week of instruction in Greek was lost to the three classes."

3 From Prof. Elder's report: "Third Term, Laboratory Practice and Analysis (elective); time, four days a week during the first half of the term. This work is to a considerable extent new. A part of it was formerly given to students who were willing to devote their holidays to it. It was taken this year by a class of twenty-two Juniors. . . . The deportment of the students [in all the classes taught] has been all that could be desired, their work generous in amount and good in quality."

4 From Prof. Taylor's report: "The total amount read [in Latin by Freshman class] will be somewhat less than that accomplished by the two classes last preceding, as it was judged not expedient to employ with this class the method of 'optional' work as an addition to the regular requirement, the method by which (as explained in former reports) the amount read by two preceding classes was materially increased. The other methods, however, specified in last year's report, of written translations, assignment of special topics to individual students, and blackboard exercises, were continued with success, and to the credit of the class it should be said in general that they have applied themselves 'to their work with interest and with industry, and the result of their first year in the department has been, upon the whole, satisfactory.'

5 From Prof. Capen's report: "In required Astronomy, with the Seniors, Newcomb & Holden's text-book was used, instead of Loomis'. The work was given entirely by printed outline. There were thirty-one exercises, twelve of which were lectures. The observatory was constantly at the command of the class. A part or all of the class were there on ten different occasions. The usual amount of work was accomplished. The class was greatly interested in the subject, as was evinced by the large number which elected the subject the second term — more than double the number of the preceding year. . . . The Physics with the Junior class during the last six weeks of the Fall term [electricity and magnetism, elective] . . . was taught entirely by experimental lectures, with dictated outline. Kimball's text book was used for reference. One-half the gentlemen elected the subject.

" The Physics with the Sophomores during the spring term is required. Subject Mechanics of Solids and Fluids. With this class the text was changed to the last or eleventh edition of Atkinson's translation of Ganot's Physics. The text in the Mechanics of Solids was supplemented by printed outline. Recitations were required every day. Explanations and experiments only occupying parts of hours. The elective work, by the class, in handling the apparatus and repeating experiments was introduced earlier in the term this year than last. All avail themselves of the opportunity to do this work, and seem greatly interested in and profited by it.

" The changes, it will be noticed, have been in books used, and the use made of them. The bane of teaching is the slavish use of books. We are pleased with the new books, and the change in method has worked well with the Junior and Senior classes, and better results have evidently been obtained.

" Nearly two hundred dollars' worth of apparatus has been purchased during the year.

" The recommendation of last year, for more room and a better opportunity for at least elementary laboratory work, is renewed."

II. REPORTS IN FULL.

I DEPARTMENT OF MODERN LANGUAGES.

Instruction has been given in French and German in accordance with the outline of the course of study given in the annual catalogue. The amount of time allotted to the department has exceeded that of previous years by forty-four lessons. This increase arose from an opportunity to put in German as a third elective study in the last term of the Senior year. In the revised course for next year, twenty-two more lessons will be added, making the total of two hundred and sixty-five lessons for the year,—an amount excelled only by the departments of Greek and Latin.

These changes correspond in part to an increased desire on the part of the students for opportunity to pursue these studies to a greater length than formerly. The value of a good *reading* acquaintance with French and German is becoming more appreciated, as a means of gaining knowledge and culture in various departments of study and research. The classes have done satisfactory work during the year, comparing favorably with previous years. The elective courses in French and German have been attended by a fair proportion of the class, in some cases by exactly the same number as have elected the other studies.

Respectfully submitted,

EDWARD W. HALL,

Prof. Modern Languages.

Colby University, June 10, 1886.

2 DEPARTMENT OF MATHEMATICS.

TO THE PRESIDENT AND BOARD OF TRUSTEES OF COLBY UNIVERSITY.

[Report on Art made in usual way.]

Important changes need continually to be made in the course of mathematical instruction. The amount of time devoted to the study is constantly encroached upon by other pursuits, rendering shorter and more comprehensive courses necessary. The text-books upon the various branches of the science are every year undergoing improvement, and frequent changes are needed. New methods of teaching are daily suggested, which must be employed in new lectures, and introduced into the work of the class-room. The past year has been no exception to this law of change, and, we trust, of improvement.

The advantages of mathematical study as a means of mental discipline, seem to be considered of less importance in a course of study now than formerly, while greater stress is laid upon its practical value as applied to the sciences and arts. In most of our colleges, and in our own, long courses of disciplinary mathematical study have been abandoned or made elective, and shorter courses, more practical and comprehensive, substituted. Advanced courses in other departments require this, and the culture of the present day seeks this new method of discipline rather than the old. The skilful application of trigonometrical principles, or the ready solution of equations of

high degree, is preferred to the memorizing of formulas or the discussion of Sturm's Theorem. There is no doubt wisdom in these changes. Certainly the idea of deriving discipline from a long course in anything where a short cut to the same result is possible, has vanished, as it ought, from the present education. But work on the part of the student has not stopped on account of these changes in methods of study. He may learn more from the professor and less from books, but he learns and thinks, and becomes disciplined. The professor cannot diminish his own amount of work. Constant preparation is necessary as an audience of alert minds in the class-room continually demands new material and new thought. New solutions of old problems, new discussions of old theorems, condensed results of intricate processes, rendered with clearness and accuracy to the comprehension of the student, are among the demands made upon the teacher of modern mathematics. It is not enough, moreover, to put an old subject in a new light. It must be presented in a modern light, and adapted to the practical demand of the education of today. Such has been the endeavor in the Mathematical department, and an effort has been made to ascertain and to appropriate the methods and plans of work in some of our best institutions.

Special mention may be made of the introduction of a short course, by lectures in Analytical Geometry of Three Dimensions, to prepare the way for a course in Crystallography and Mineralogy.

One important change has been made in text-books, the substitution of Taylor's Calculus for Olney's. This new work by Prof. Taylor, of Madison University, presents fresh and elegant methods of analysis, and adapts the Calculus to the wants of the student in the physical and mechanical sciences.

The following table shows the subjects taught, and the number of recitations in each class during the year:

Fall Term — Freshman class, Geometry, 43 recitations. Sophomore class, Analytical Geometry, 22 recitations.

Winter Term — Freshman class, Algebra, 31 recitations. Sophomore class, Spherical Trigonometry, 15 recitations.

Spring Term — Freshman class, Plane Trigonometry, 56 recitations. Junior elective, Calculus, 28 recitations.

Respectfully submitted,

LABAN E. WARREN.

Colby University, June 7, 1886.

3 DEPARTMENT OF HISTORY AND POLITICAL ECONOMY.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY.

The work in History has been conducted on the same general plan as in former years. Slight changes in detail have been made in development of the idea, according to which the department was organized. It appeared immediately after the last meeting of the Trustees that in consequence of the creation of a new department a re-arrangement of the course in history and political economy would be necessary. Until

these changes could be determined, it did not seem to me wise to avail myself of the permission granted to print my lectures. I therefore gave the substance of them to the present Senior class, with the type-writer and hektograph. During the past year Prof. Fisher has published his "Outlines of Universal History," which is an admirable book of reference, and I have adopted it as a text-book, on the basis of which I have begun lectures to the Junior class.

In the course as now planned the "History of Civilization," formerly given in the first and second terms of the Senior year, has been transferred to the Junior year. During the first and second terms of the Junior year the study of history will occupy but one hour a week in the class-room, and that an hour usually devoted to lectures, on which no examination has been required. Whatever study the students may do in connection with the weekly lecture now proposed, will be additional to the work of former years. As an inducement to such study, which can be arranged so as to be very profitable, I propose the following, viz.: On condition that not fewer than *six* compete, two prizes of twenty-five dollars each shall be awarded to the members of the Junior class passing the two best examinations on a subject to be set by the professor of history, in connection with the lectures of the fall and winter terms.

I earnestly recommend that twenty-five dollars be appropriated for one of these prizes, and I will myself pay the other prize of the same value.

The changes in the curriculum have made it possible to add an elective course in Constitutional History of the United States, which I spoke of as desirable, in my last report. The course, as now arranged, provides for the study of American Constitutional History in the fall and winter terms of the Senior year. It is my desire to instruct the class, as far as possible, in the use of authorities. The library does not at present furnish the means for such instruction. The additions to the historical department of the library during the last five years have been chiefly in the line of general history. In order that the work in American history shall be satisfactory, large additions of authorities are indispensable.

There has been no instruction in "Political Economy" during the current year. The present Senior class studied that subject last year, and the present Junior class, instead of following the same order, have begun the study of history, and will take up political economy in the last term of next year.

The work in "Elocution" has been as follows: Class exercises, 42; private rehearsals for six exhibitions, 364.

Respectfully submitted,

ALBION W. SMALL.

Waterville, June 9th, 1886.

4 REPORT OF M. E. WADSWORTH TO THE PRESIDENT AND BOARD OF TRUSTEES OF
COLBY UNIVERSITY FOR THE YEAR 1885-6.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY.

The first year in connection with any institution is a period of peculiar trials, and there has been no exception from the common lot in my case. Yet, on the whole, the

results attained are far from being unsatisfactory. Owing to the natural disturbance in a college curriculum, which the virtual creation of a new department makes, much of the work performed during the past year has been of a preliminary and transition kind, and such must be the case for several years to come.

For the accommodation of my department your Prudential Committee have provided by a temporary change in the upper portion of Coburn Hall, and the demands in that direction can be satisfied during the coming year by having additional drawer room for collections, and by increased heating facilities. My warm thanks are especially due to Dr. Lyford, of your Prudential Committee, for his constant efforts to second my wishes in the arrangement of the building.

A fair mineralogical collection for the use of students has been arranged during the year. Work has also been commenced on the re-arrangement of the exhibition collections, and this will be proceeded with as fast as my other labors permit. Much alcohol is needed for the preservation of the zoölogical specimens, and for use in the laboratory, and I would suggest its purchase by the barrel, free of internal revenue tax, for scientific purposes, as provided by the laws of the United States. This would result in saving on every barrel some fifty or sixty dollars.

During the first term, instruction was given to the Juniors, in Mineralogy, by means of lectures, laboratory work, and recitations. Although the course nominally called for only four exercises a week, I practically had in it, after the first part of the term, two lectures and sixteen recitations each week, beside the laboratory work. During the second term, instruction was given to nine Seniors in Mineralogy, and to one graduate student — the State Geologist of Michigan — in Petrography. For the third term I have had seventeen Seniors in Botany, and the entire Junior class in the same subject. Much of the time has been spent in field work. The behavior of the students in the class-room, laboratory, and field, has been very satisfactory, and I have never dealt, in my experience of twenty-three years as a teacher, with more manly or better behaved students.

In Botany, the classes have done much more than students did during my time in college; while in Mineralogy the Juniors in twelve weeks, and the Seniors in eight weeks have accomplished nearly as much, and as well, as the students of Harvard University used to do in the entire year.

The needs of my department are numerous and varied, but I do not ask aid for exhibition or "show" purposes, but simply for the materials necessary to render the instruction effective, practical, and disciplinary. In Crystallography, the department possesses only a few plaster models, which are not suitable for students' use; and I have therefore placed my private collection at their disposal, but a larger and more varied collection is greatly needed. In Mineralogy an increased number and greater variety of specimens are needed to make the instruction more effective. For Petrography some specimens have been purchased, and a large number collected by myself for the work, yet more are absolutely necessary to give any satisfactory results in the instruction.

For general instruction in Geology a small collection exists, suitable rather for reference than for laboratory work, while in Economic Geology the department has but little of value, except some boxes of ores, given by the State Geologist of Michigan to the University.

In the above subjects, I propose to try, for the time allowed, to make the instruction better and more practical than that given in the under-graduate course of any other institution in the country, if the means of doing so are placed at my command.

For Botanical instruction there exists nothing in the department except the small herbarium. It would be a great aid in my instruction if the funds of the library permitted a more extended purchase of books that could be used by my students, and that it could be open during a great part of the day.

Owing to my other duties, and the want of material, but little work could be done preliminary to graduate courses, or in the line of original research and publication, three things that in a university appear inseparable, if success is to be attained.

While proposing to perform my under-graduate work faithfully and well, it seems to me that my usefulness to this institution will be enhanced if I can do something higher, and aid in increasing the sum of human knowledge. To this end the aid of your Board is asked. Graduate students will rarely go to any institution unless there are both the men they wish to study with, and the means of making such investigations as they desire. The number of such students is always very small, but their effect in attracting and stimulating the under-graduates is very great. Again, graduate students will rarely go to study with any one unless that person is himself actively engaged in original research. To equip properly a laboratory for such work as I desire to do, will cost some three to five thousand dollars, and as all of the apparatus has to be imported from Europe, it will take a year or so to procure it. It would be better if all the necessary apparatus could be provided for at once, but if impracticable the same thing could be accomplished in a less effective manner by appropriating a thousand dollars a year for several years. Unless something can be done in this direction, it will be necessary to withdraw the announcement of graduate instruction now made in the annual catalogue. In order to continue the investigation I was upon before my election to a chair in this university, I have retained my old position at Cambridge, without pay, however, while the work is done at my own expense. My long winter vacation was spent at Cambridge, in continuation of that work, but during the present summer vacation it is my purpose to go to Minnesota to take charge, as geologist, of an exploring party engaged in the geological survey of that state.

REPORT OF THE LIBRARIAN.

The administration of the library has been continued upon the plan which has given the University the best results for the small expenditure allowed. At the date of this report a full presentation of the statistics of the library for the year cannot be furnished. It may be stated, however, that the additions to the library will amount to about six hundred volumes, many of which are gifts which will be acknowledged in the annual catalogue. The total of the accessions to the library is thus brought up to 20,000 volumes, or double the number at the time of my appointment in 1873.

Large as this number may seem, it should not be taken to represent the effective working value of the library. As in all libraries which have been for many years recipients of miscellaneous gifts, and with scanty funds to purchase desired books, a small part — perhaps not more than one-fourth — can be designated as of practical use today. Many hundreds are duplicates, or works which have done service in the past, but are now superseded. A great number are unused documents which have a right to be stored in the library for future generations. Yet these are not the books in demand at present, in the prosecution of the work of instruction.

The library has received no large gift of books, other than government publications, during the year. Prof. P. B. Spear, D.D., of Madison University, has generously, and without solicitation, given fifty dollars to the library funds, in memory of his personal friend, the late Rev. W. H. Shailer, D.D.

The small appropriation for binding has been applied, as far as it would go, toward the most necessary binding, and some of the library income has been drawn upon for the same purpose. There still remain several hundred volumes in urgent need of binding. Books are constantly wearing out if used, and re-binding at the proper time is the best economy. A larger appropriation is needed to meet this want.

New shelves have been supplied in three alcoves which were not finished when the building was erected. A case adapted for shelving volumes of large newspapers and charts, has been constructed under the library stairs. Other similar cases are needed, as well as a supply of pamphlet boxes, book supports, and other library furniture.

The library has been subjected to a thorough examination, necessary every five years. During the vacation the books were taken down and cleaned, and the dust washed from the shelves. This labor, like the care of the library in every other respect, is constantly becoming greater. It is a proper and healthful increase, and should be provided for. The duties of the librarian have more than doubled with the doubling of the accessions, and quadrupling of the circulation in thirteen years.

Provision should be made at once for such an addition to the library fund as will permit a large increase in the annual expenditures. The importance of a good endowment of the library has not been recognized by us. We are trying to provide, at an expense of some hundreds of dollars, privileges which other colleges obtain by expending as many thousands.

Respectfully submitted,

EDWARD W. HALL,

Librarian.

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THE LIBRARY
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COLBY UNIVERSITY.

PRESIDENT'S REPORT.

1887.

COLBY LIBRARIES

COLBY UNIVERSITY.

Course of Study, 1887-88.

In the following Course of Study as revised by the Faculty, provision is made for two distinct courses in a portion of each term of the Junior and Senior years. In COURSE I, the instruction in the classical languages is continued, while in COURSE II, more attention is given to scientific studies.

FIRST TERM—12 WEEKS.

HOUR	FRESHMAN CLASS.	SOPHOMORE CLASS.	JUNIOR CLASS.	SENIOR CLASS.
8 A. M.	Geometry, 4 hours. Latin Composition, 1. Christian Ethics, 1.	Latin, 5. English Literature, 1.	Logic, 5 for 6 weeks. History, 1 for 6 weeks, then 6 for 6 weeks.	German, 4. Elocution, 1. Lectures on Art, 1.
11.30 A. M.	Greek, 5.	Rhetoric, 5.	Chemistry, 5.	Psychology, 5.
4.30 P. M.	Latin, 4. Elocution, 1.	French, 4.	I. Greek, 4, II. Mathematics 4 for 6 weeks Physics, 4 for 6 weeks	I. History, 4. II. Mineralogy, Petrography, and Geology, 4.

SECOND TERM—8 WEEKS.

8.00 A. M.	Algebra, 5. Latin Composition, 1.	Greek, 5, English Literature, 1.	I. Latin, 4. II. French, 4. History, 2.	I. History, 4. II. Geology, 4. Zoology, 2.
11.30 A. M.	Latin, 5. Elocution, 1.	Rhetoric, 5.	Physics, 5.	History of Philosophy, 5.
4.30 P. M.	Greek, 4.	French, 2, Mathematics, 2.	Physiology, 4.	German, 4.

THIRD TERM—16 WEEKS.

8.00 A. M.	Mathematics, 4. Greek Composition, 1. Physiology, 1.	English Literature, 6 for 8 weeks. Chemical Physics, 5 for 8 weeks. English Literature, 1.	Astronomy, 5. Elocution, 1.	I. Greek, 4. II. Economic Geology, 4. Lectures on Art, 1.
11.30 A. M.	Latin, 5.	Greek, 5 for 9 weeks. French, 5 for 7 weeks.	I. History, 3 for 10 w. Botany, 2 for 10 weeks. German, 5 for 6 weeks.	II. Mineralogy 3 for 10 w. Moral Science, 5.
4.30 P. M.	Greek, 4. Elocution, 1.	Physics, 4.	I. Latin, 4. II. Chemistry, 4 for 8 weeks Calculus, 4 for 8 weeks.	Political Economy, 4.

Each member of the Sophomore class will notify the Secretary of the Faculty, before the close of the third term which of the courses he elects. Changes from one course to the other will be allowed in subsequent terms on condition of making up the studies previously taken in that course.

COLBY UNIVERSITY.

PRESIDENT'S REPORT.

1887.

WATERVILLE:

PRINTED AT THE SENTINEL OFFICE.

1887.

COLBY UNIVERSITY.

PRESIDENT'S REPORT.

TO THE BOARD OF TRUSTEES OF COLBY UNIVERSITY:

GENTLEMEN:—As President of the college I would respectfully submit the following as my fifth annual report and invite your attention to its review of the year now closing, to its suggestions as to the future and to its discussion of two or three supplementary questions.

I. A REVIEW OF THE YEAR.

This retrospect will include, with a mere glance at the general course of things, a more particular statement of the internal affairs of the college as related on the one hand to the students, and on the other to the Faculty, and the notice of certain miscellaneous matters.

1. *In General.*

We may fairly account the year as being one of decided prosperity. Death has removed no one from the Board of Trustees, from the Faculty of Instruction or from the body of students. The work of the college has gone forward successfully and without interruption from sickness or from any other cause. The attempts to deprive the college of funds bequeathed to it by the late Governor Coburn have miserably and grandly failed. No reverses of any kind at any point have been experienced. Good will toward the college at home and abroad has deepened and increased and has borne such visible and tangible fruits as were indicated in the reports of the Treasurer, the Librarian and the Art Committee, with other fruits which cannot be here named.

2. *Of the Students.*

The annual catalogue when corrected gives one hundred and twenty names. Of these all but three have been in attendance on college duties during the whole or a part of the year. There are ninety-nine young men and twenty-one young ladies. They represent seven of the United States and two of the British Provinces. All but fourteen, however, are accredited to Maine. Of the other states and the Provinces, Massachusetts and New Hampshire send four each; the others one each. While it would gratify our pride of reputation to draw more largely from beyond the boundary lines of this state, it would less impressively exhibit the special indebtedness of Maine to the college and the consequent claim of the college upon the citizens of Maine for loyal and self-sacrificing support. It is to be hoped that the ignorance elsewhere prevailing as to Colby's comparative merits may be more rapidly dispelled in order to secure to the college a larger number of students from abroad, and to such students the superior advantages of the college. But it is perhaps too much to expect any radical change at this point until Maine becomes somewhat less of a *terra incognita* than it hitherto has been and still is to the other states, even of New England.

A Freshman Class of thirty-three members entered in the fall. It gave promise at the first of being a class characterized by scholarly and manly qualities. This promise it has thus far amply fulfilled, nor is there any reason to fear that it will fail to do so in the future. The exercise of that discretion which was allowed to the Faculty in receiving students without entrance examinations has not thus far appeared to bear evil fruit.

The Senior Class completes its course with thirty-four members. This exactly is the number with which it began its course. Four have joined the class and four have left it during its four years in college. No larger class, and only once (1881) so large a class has ever been graduated. Its maintenance of the original number of members is unusual. But although we

are accustomed to see our classes fail to maintain each its initial size, we probably do not suffer as to this in comparison with the other New England colleges. By an examination of the semi-centennial "Alumni and Non-graduates" volume of Amherst College, I find that during its first fifty years, of those who entered, only sixty per cent. were graduated, while forty per cent. "fell out by the way." But there has not been a more prosperous college than Amherst and her first fifty years were years of splendid success. It is discouraging to lose members from our classes but such losses and their causes are for the most part inevitable. Colby is making a record for tentativeness of which she need not be ashamed.

My endeavor during the past as in previous years has been to cultivate and develop in the students a spirit of self-respect and self-government. There has not been wanting evidence that such endeavor whether by myself or by others has been successful. It is useless to expect sinless perfection even in college students, to say nothing of college professors or even trustees, and there have been occasional acts of disorder which were regretted and condemned not less by the body of the students than by the Faculty. Such acts, however, have been rare, not less exceptional than exceptionable. Were it possible (as it is not) by police vigilance and iron-handed compulsion to maintain absolute good order, it would be better to have some disorder with the existing spirit of loyalty to the college, and of self-respecting self-government. Whatever may elsewhere be necessary, there certainly is not now needed in Colby a slave-master government. There have prevailed a well nigh universal and uniform courtesy, good will, loyalty, and fidelity to duty. The Juniors' gift to the college of the elegant cast of the splendid piece of statuary, "Diana and the Stag," is significant. Still more emphatic and unmistakable evidence of the general good feelings can be found in the college publications for the year, especially in *The Oracle*.

The reports of the professors, given to the Board in manuscript, will show that steadiness, faithfulness, and success in study in the several departments have characterized the year. It is no reflection upon the Examining Committee of this or of any other year to say that the judgment of an officer as to the work of his class, is worth more than the judgment of examiners, as examinations are usually, and almost necessarily made. One examiner, sometimes two, will spend an hour or a half hour once or twice in the year in a class-room, when from unknown causes, the class or officer, one or both, are perhaps at their best or at their worst. The examination papers, giving the results of the three hours' examination at the close of each term, are not even called for, and could not, with the time and strength at the command of the examiners, be fairly estimated. The examiners themselves are not always so familiar with the nature and amount of the work that can, and should be done in the class-room, as to ensure infallibility in judgment, even on the facts known to them. While an Examining Committee can render to the college a great service, and its report, when carefully drawn, will be of much value, the Board, in justice at once to the Committee and to the Faculty, should recognize the facts just noted and their bearing on the impressions and decisions of examiners. No test can be final which cannot be thorough. This is stated without the slightest intimation as to what the report of the Committee will this year be, and simply to put in its right light this whole matter.

The Merrill Prizes have this year been won by those who have been mainly dependent on themselves for funds and who are eminently worthy in character and conduct as well as in scholarship. In this respect, as well as in their general helpful influence as incentives, the prizes have well served the purpose of their munificent donor. The contests for the University Prizes and the Hamlin Prizes have been of a high order and have developed and exhibited much elocutionary and rhetorical interest and merit.

Our students have a care for some things not strictly included in the college course. Indeed, more than half the charm and hardly less than half the value, of college life is of this nature. The curriculum cannot compass all their physical, social, intellectual, and moral wants. They must and do create for themselves courses which are in every sense optional and voluntary, and the more keenly enjoyed for this reason. We do well to recognize this fact, and to countenance and encourage whatever of good it may carry. This college has the more reason to countenance the athletic games which have thus originated, because, while building and furnishing moderately well a gymnasium, it has provided no instructor or instruction in gymnastics. But where there is a competent instructor the whole ground is not covered. A strong desire for required physical instruction and training exists in Colby and the Prudential Committee in the term now ending so far yielded to this desire as to employ a young man about two months, at fifteen dollars a week, as an experiment. This experiment is regarded by students and Faculty alike as in all respects a marked success. Attendance upon the drill has been voluntary, but, according to the report of the instructor (Mr. Follen of Boston, Mass.,) remarkably regular and general.

Inter-collegiate games have not this year been as numerous as in previous years, owing to the fact that for special reasons, Bates College and the State College did not enter the lists. There has been the same readiness as heretofore, to respect and execute the President's wishes in the management of athletic sports, and while this disposition exists the Board has nothing to fear. It is elsewhere the custom for teams to absent themselves during term time from their respective colleges for a week or more continuously to engage in a succession of contests with other teams in the same or other states. This demoralizing custom has against it the emphatic sentiment of our students as well as of the professors. It has nothing in its favor and everything against it. It is adverse even to physical culture.

The secret societies attempt to meet a social and literary want. Not under the direct control of the Faculty, they yet have vital and far-reaching relations to the well-being of the college. They have their advantages and their disadvantages. Unfortunately, in this college they long ago caused the death of the two literary fraternities which together included in their membership the entire body of the students. Those fraternities furnished the best possible field for that general culture which is collateral to that of the curriculum. The secret societies attempt to supply at once their peculiar social fellowship and that literary culture. They have desired and formally requested of the Faculty that one evening in the week be granted them for their meetings by the surrender of the next morning's exercise. As the Board five years ago passed a vote that there should be at least fifteen class-room exercises a week, the request could not in form be granted without disregarding the expressed will of the Board. If discretion is allowed to the Faculty to meet this want hereafter, in such manner as shall seem for the best interests of the college, the matter can probably be settled satisfactorily and all cause of existing complaint be removed.

The Young Men's Christian Association of the college has continued to hold its usual number of meetings and carry on its accustomed work. Attendance at these meetings and the apparent interest have been somewhat less than during the previous year. There has, however, been much in the moral and religious condition of the students to cause gratitude and hope. The young ladies have had religious meetings at Ladies' Hall, and these have been occasions of deep interest. Professor Elder has, on Sunday mornings, met a Bible class composed of students from the Senior and Junior classes, and Professor Warren a class of Freshmen. I have met a class of the Sophomores at the same hour, giving a series of lectures on the Bible and subjects pertaining to it. My own class has been throughout the year very fully attended, and the same, I think, has

been true of both the other classes. While there has been much to be desired which has not been realized, it yet is possible to say truthfully that Colby University is a Christian college.

The increase in the relative number of young ladies in Colby cannot have escaped the notice of the Members of the Board. Ladies' Hall has been fully occupied. Two rooms in the attic were last summer fitted and furnished for occupants. The house has been this year, as it was last, under the admirable and popular management of Mrs. Mortimer. It has been not only to its occupants but to the other young ladies of the college a bond of social, literary and religious life, a true college home. No mistake was made in the purchase of this property, or in the plan adopted for its occupancy and use. The regulation of the conduct of the young men and young ladies in their mutual relations has been left to their own sense of honor and propriety. This trust has not yet failed us. May it never prove to be at fault.

3. *Of the Professors.*

Their reports will show that they have all been on duty continuously through the year. Even when one has been occasionally absent for a day or more it has been to render the college a service still more important than would have been the class-room exercise. The college is manned by teachers who in their public services abroad represent it worthily, confer upon it honor, and attract to it favorable notice. Believing that it has suffered, sometimes grievously, and always seriously, from lack of such service rendered, it has been my endeavor from the first to remedy the defect and to encourage the professors, each in his own way, to make close and vital the connection of the college with the public. While the teacher's first duty is to his classes and with them, he has also to recognize collateral interests essential to the institution and to the very existence of classes. All creditable outside work done by officers or by students, whether by the living voice or by the pen, is a gain to

us. The Board doubtless holds the same view, and will gladly give due recognition and encouragement to those acting upon it. To prosecute advanced work in any department, but especially in the departments of natural and physical science, involves an expense for equipment which is beyond the means of the officers and must be borne, if at all, by the institution. We have men at once able and disposed to do such work and to continue to prove themselves to be leaders among leaders.

We began the year with an officer in the chair of Physics and Astronomy, new to us but tried and approved elsewhere. It has been, from the start, abundantly and increasingly clear that in his election no mistake was made. He has adjusted himself easily and happily to his new duties and relations, and, if he can be furnished with tools requisite to perform his class-room and other work to the best advantage, he will doubtless continue to feel that he too made no mistake in coming. It cannot be expected or desired, that either he or any other officer shall be content to do less or worse than the very best possible.

Professor Small has spared no pains, labor or time as Instructor in Elocution, and the results have been certainly not less satisfactory than in previous years. It is fitting that at the close of his services in this relation the Board should be congratulated on having been able for four years to meet so happily one of the most difficult of all the many difficult demands of a college course.

Professor Hall has given to the Library the same constant attention and technical knowledge and facility as heretofore. He has well earned that reputation for eminence as a librarian which he deserves and enjoys. The time, care and skill given by him to the preparation, publication and distribution of the annual catalogues can be understood by no one not intimately conversant with the nature of such work, and the value of this service in the whole appearance and influence of the catalogue is very great. My own frequent indebtedness to him for his ready aid in kindred matters is gladly acknowledged. To the

preparation of a second edition of the General Catalogue he has during the term now ending devoted incessant labor. It was hoped that the new edition would be ready for distribution at Commencement. This may prove impossible.

The Faculty are a unit in their love of work and their fidelity to duty. To all its members I have been indebted for ready and hearty co-operation in my endeavors to serve the college and advance its interests. There prevails among them a general spirit of harmony, enterprise and devotion to the college. I cannot too strongly express my appreciation of the high character and merits of the Colby Faculty and I gladly avail myself of this opportunity to bear anew this testimony. They deserve, as they have, the generous confidence of the Board.

4. *Of Miscellaneous Matters.*

The revised course of study laid before the Board and adopted a year ago has been on trial this year. In this there are no electives during the first two years while in the last two so much of the course as is elective is divided into two subordinate courses, the one more classical, the other more scientific. By the plan the student's election is for the whole of one or the other of these courses and is made once for all. The trial of this plan has shown its decided advantages. The elections have thus far divided each class about equally and from the fact that there is only one election we have escaped the mischief of a perpetual oscillation. This is a gain to discipline. The plan has also some disadvantages, for the two courses are necessarily not each a natural and continuous course but somewhat arbitrarily formed. It may be found necessary to modify somewhat the plan and make a grouping by natural courses with corresponding elections. The Board will trust the Faculty to make such modifications as shall be found desirable and practicable.

As in former years there has been an occasional lecture to the students in the College Chapel, usually on Wednesday evenings. The public have in every instance been invited and

have attended in considerable number. The lecturers and subjects for this year have been as follows: Col. Z. A. Smith, *Journalism as a Profession*; Professor Small, *Books and Reading*; Professor Rogers, *Old and New Methods in Education*; Rev. C. C. Tilley, *The Relation of Thought to Life*; Dr. A. P. Marble, *The Public Schools of a Modern City*. These valuable lectures have been given gratuitously. About twenty dollars have been allowed by the Prudential Committee in defrayment of expenses. The attention of the Board was last year called to the subject of such lectures in the hope that an expression of approval or disapproval might be given. The plan was inaugurated by me in my first year and has seemed to work well. But I have been reluctant to ask the Prudential Committee for the little money needed while uncertain of the Board's preference.

One member of the Prudential Committee, Dr. Moses Lyford, has been, during nearly all the year, in his new home in Springfield, Mass. This has been to us a serious loss and deeply regretted. His acquaintance with the needs of the college, his great practical wisdom and his constant readiness to render the college every possible service eminently fitted him for his office. His absence has been the more regretted because the Board at its last meeting failed not only to make the usual appropriations to the departments of the natural and physical sciences, but also to make special provision for such extra expenses as were urgently demanded by the new department of Mineralogy and Geology. The committee have also been obliged to take the responsibility of deciding as to considerable expenses in other directions and as to the sale of the Elmwood Hotel. They feel clear, and trust the Board will, that their decisions have been "wise and prudent."

The preparation of the new edition of the General Catalogue, referred to above, was in obedience to the will of the Board as expressed two years ago. Authority was then given to issue it either in 1885-86 or later, as might seem best. For several reasons its preparation was postponed a year. It thus appears five years after the first edition.

The care for the grounds and buildings has not been less faithful than in former years. The Janitor has been, as ever, discreet and vigilant. His rare qualifications for his position, his peculiar loyalty to Colby's interests, his protracted period of service and his quite unique reputation are well known to the members of the Board. It is not strange, perhaps, that he sometimes thinks that one having such manifold, delicate and weighty responsibilities and labors should have just a trifle better pay. I half suspect "Sam" is right about this. The President knows, better than any one else can, his varied worth to "Colby University."

The hope expressed in my last report that an Association of the Colby Alumni in Maine would soon be organized at Portland has been realized. Its first meeting was in all respects a great success and the Association will have a wide and beneficial influence for the college and associated academies not less than on its members. The meetings of the Associations in Boston and Springfield, Mass., have awakened enthusiasm and strengthened loyalty.

Our academies have never been more prosperous. Dr. Hanson, contrary to our anxious fears, has completed another year of work with his accustomed zeal and thoroughness. He brings to graduation in the college preparatory class twenty-eight students. He finds in Miss Winslow, a graduate of the college, class of 1886, a valuable accession to his teaching force. The reports from Ricker Classical Institute show that with its large accession of funds the school has, what is at least equally important, the best of management and instruction and the steadily increasing good will of the town and county. Hebron, in the number and character of its pupils and in the work done by Principal Sargent and his associates, has made for itself a fine record. The new and needed building with increase of endowment is not yet a thing completed. The work of securing it is in mind and in hand and demands our co-operation. These schools have all been visited by members of the Faculty as required by the Board.

II. THE FUTURE.

The addition of two hundred thousand dollars to our productive funds is an obvious reason why we should just now take a careful look ahead. Our decisions should respect both the near and the distant future. I would respectfully make the following suggestions in hope to aid the Board in making the right decisions.

1. *The Permanent Fund.*

It seems to be the dictate of prudence that the existing funds of the college, including the entire Coburn bequest, should be forever kept intact and the interest alone used. It is quite probable that Governor Coburn expected that fifty thousand dollars would be expended in the erection of a building or to supply some other need, but he has not required such expenditure and has left to the Board the decision of the question. The funds of the college are certainly none too large to meet its necessary current expenses, and, if by re-investments our income is to be diminished, we shall soon find ourselves in want. It will be more easy to raise the money needed for buildings and their furnishing than for permanent endowment. And are there not friends of Colby University who will gladly unite in making the contributions requisite for its present necessities in order that the Coburn fund may remain forever to make of the college a new and increasing power in the state and in the world? We ought not to believe the contrary save under compulsion. Earnest effort, directed by practical wisdom, can hardly fail to secure the needed supply. There are men and women of large hearts, large views and large means who love Colby, believe in Colby and will do and sacrifice for Colby. Examples like those of Gardner Colby and Abner Coburn are contagious. The power of that contagion has already been felt and shown among our friends and that power is not yet exhausted. Besides there are multitudes who with equally large hearts will together, from their more moderate means, do large things. When opportunity and full trial combine they will not be found wanting.

2. Buildings and Furnishing.

One want, under this head, is clearly and well stated by Professor Elder in the following words :

"A proposed change in the course will increase the amount of work in advanced chemistry. This will, I think, be an advantage to the student, as by it sixteen weeks will be given to laboratory practice and analysis, both of which are of great educational and practical value.

Many of the processes of analysis require the use of unwholesome gases, and must be carried on in ventilated closets (hoods) which should be so near the students' work-table that he can watch their progress while carrying on other parts of his work.

The space we have thus fitted does not allow more than three or four men to work without serious delay and inconvenience. One room is entirely without hoods.

The utmost care cannot prevent the escape of odors into the room, and, unless this is large, high and well-ventilated, the student must suffer in health, not to say comfort. This difficulty will be greatly increased when the course, which has, so far, been confined to cool weather, is continued into the heat of summer.

The laboratory, the lecture room, the apparatus room and the teacher's work-room should be in close connection, as the first requires the constant use of the others for oversight and supply.

A building as large as Coburn Hall would be none too large for the requirements of chemistry alone, if generous provision is to be made for the future.

As the work of fitting up a laboratory is exceedingly laborious, on account of the amount of material which must be provided for each student, it is greatly to be desired that whatever is done should be permanent in its nature.

We labor under serious disadvantage in not having a suitable room for a laboratory. The space now used consists of two narrow rooms not half large enough for our smallest classes, poorly ventilated and without suitable fittings for the work to be done."

Dr. Wadsworth in his report strongly urges the same need as being immediate and imperative.

Better accommodations are required for the department of Physics and Astronomy. The third term of Physics contemplates laboratory work which demands increase at once of room and of apparatus. This room cannot possibly be secured in Champlin Hall unless other officers are turned out of it or an addition made to it. Dr. Wadsworth recommends in his report the erection of "a plain building costing \$5,000.00 or \$10,000.00 to accommodate the department of Physics in the lower portion and that of Mineralogy and Geology in the upper part." This proposition contemplates the devotion of Coburn Hall to "biological work" alone, along with the creation of a Department of Biology.

For our present classes the smaller class rooms in Champlin Hall are only one half the proper size. It is impossible so to heat and ventilate them as to secure suitable air for occupancy during an entire hour. Besides Professor Small has no room for his department but is compelled to use such room as he can find vacant, sometimes one and sometimes another. With the erection of a new and suitable building in which to accommodate the department of Physics and Astronomy the needed relief would be gained.

The Observatory is nearly undermined by excavations and cannot remain in its present position more than a year longer. Among the changes to be made soon must be a provision for its location or the substitution of something in its place. There is a grievous disadvantage in having an instrument designed for the use of students in a place so remote from the class room and so nearly inaccessible. The Professor of Astronomy will be glad to make statements respecting this matter and others affecting his department, to any committee which the Board may appoint to consider all existing needs.

The Gymnasium could at small expense be more than doubled in value. By the introduction of water into the town through

the water works now in process of construction, bath rooms and water closets can be readily provided. This change would connect itself with a possible change for the better in the mode of heating our buildings. A moderate outlay of money in improvements of this sort as also in adorning the campus does much to recommend the college to the casual visitor and especially to the students in whose interest they are primarily made. They tend to refinement of spirit, speech and conduct. Whatever does this for our students is above price.

Buildings are important, but the equipment of departments is still more important and valuable. In addition to the usual allowance for Professor Rogers' department he needs and should have at once a special appropriation "to complete the illustration of his text book in Physics," and for "special apparatus for his laboratory work in the third term of Physics." All this is needed for his regular class work as now planned and conducted. There remains for him that further need of tools with which to carry on his advanced work which neither he nor this college can afford to forego. His needs in these respects are not essentially unlike those of Professors Elder and Wadsworth. I pray the Board to look thoroughly into these calls in order to know how to exercise an economical liberality.

The Library is fitly called the "laboratory of the whole college." While it is excellent in respect alike to its contents and its management there are deficiencies which are keenly, almost bitterly, felt, the supply of which is far beyond the means that have ever been at the disposal of our Librarian. Besides he as well as others regard it as extremely desirable that the Library should be kept open through the entire day. The Librarian desires and needs an assistant in caring for the Library on the present plan. A small appropriation for this is asked.

Professor Taylor this year closes his report with the respectful request to the Board "that two hundred dollars be appropriated for the purchase of books for the Latin department, or of those pertaining to the science of Philology, to be expended

at the discretion of the professor in that department." He has fully set forth in connection with this request his reasons for it and I would ask the Board to give them consideration.

It is clear that of the wants to which reference has above been made some should be at once met while the others must for a time wait. There are still others of which nothing could be said. I would suggest that the Board make such appropriations as shall be seen to be suitable and that in addition a committee of three be appointed from its own number to look thoroughly into the existing wants of the college, to form some permanent plan of action with reference to them and to take such steps as may be deemed best to initiate the execution of the plan. The committee will need to give to it more time than can be at their command during the days of our anniversaries and should be able and willing to devote to it whatever time is needful. It is of the utmost importance that the right decision be reached and put in process of execution. To do nothing is suicide; to do the wrong thing might prove even worse. But the Board does not lack the men who can and will solve the problem wisely.

3. *Changes in Instruction.*

The understanding at the last meeting of the Board was that Professor Small, then invited to teach the Elocution for 1886-'87, would not consent to do this work longer. This understanding has been since confirmed by his statements to me. The exacting and exhausting nature of the work has been such that, while it has not impaired his efficiency in instruction in his own department, it has rendered it impossible for him to prosecute his studies as he otherwise might and would have done with the greatest advantage both to himself and ultimately to the college. The necessity of making provision for the Elocution for the coming year was thus obvious. No one in the present college Faculty except Professor Small would be regarded by himself (or, possibly, by any one else) as a suitable man for the work. We had already made quite too thorough

trial of the plan of an "off and on" professional elocutionist. Besides, the difference in expense between such a teacher and a man whose whole time we could command, partly in the Elocution, partly in the Rhetoric is not alarmingly great. It therefore has been the judgment of the Faculty, confirmed by several members of the Board, to whom the matter has been privately presented, that it would be wise to elect a young man of the requisite qualifications to take the Elocution and a part of the Rhetoric and so enable us to extend, as is desirable, the instruction in English Literature. If this plan shall seem wise to the Board, it will be easy to name and possible to secure the fit man. With this plan Professor Smith is in hearty accord.

Professor Elder would be glad to have assistance in his work during the third term. The desired assistance could be rendered by a student who had shown unusual fondness for the department and aptitude for its practical work. The student through such association with the officer would gain much insight into the study and preparation for its subsequent prosecution and for teaching it. This would in turn be a gain to our college and academies. We are already in this and other departments doing a like service for some of our graduates who spend time here in their vacations. Professor Elder suggests that for the purpose named the sum of two hundred and fifty dollars be appropriated. This would be practically a University scholarship or prize for excellence in the department while also furnishing the relief desired by the professor.

The brief experiment in gymnastic instruction seems to indicate that such instruction should, if possible, be made permanent and required. If of the right kind and by the right man, it will contribute not only to physical health and development but also to the elocutionary training, to self-government and good order and to the reputation and general welfare of the college. If the college should not judge it wise at this time to commit itself to the permanent establishment of this line of

instruction and to the permanent employment of a person to have charge of it, I would suggest that arrangements be made for a continuance of the experiment already begun through the whole, or at least a part, of the coming year. The same instructor, Mr. Follen, can doubtless be secured at a moderate charge. The employment of a student with the requisite qualifications has sometimes been tried with advantage. This would be far preferable to the state of things hitherto existing. There is in college material of which to make such a man, but it would need a year of preparation to make sure the success of the trial. It would be better not to make such experiment this year if an experienced teacher can be employed.

Professor Warren asks that he "be relieved from lecturing upon Art, that some professional lecturer be employed, instead, to give a short course of Art Lectures, and that the sum of one hundred dollars be appropriated for special expenses in the Department of Art." It is well known to the Board that in this department Professor Warren has worked without charge for his services and has been signally successful. If a special lecturer of the highest reputation would gratuitously give a course of lectures it would on all accounts be a mistake to substitute him for Professor Warren. I trust his request will be refused and in such manner as to incline him to "go forward."

The general work of instruction in the college has doubtless been much aided by the Merrill Prizes. To each class now in college Mr. Merrill offered prizes amounting together to five hundred dollars, one hundred for excellence in preparation and one hundred for excellence in each of the four years. As he did not make the same offer to the class which shall next fall enter, the Board last year made to that class the offer of two prizes for excellence in preparation, a first prize of fifty dollars and a second prize of twenty-five dollars. No offer is made to it for excellence in any part of the college course. Will it not be well to make such offer, and one also to the class which shall enter in the fall of 1888? The announcement of the existence

of such prizes turns to us the attention of ambitious students in the preparatory schools and tends to tone up scholarship.

It would seem that some of our friends, interested in special lines of college work, would be glad to establish prizes for excellence in the same. It would gratify the officers in any department to have at command such a stimulus and to use it to the best advantage. This hint may seem to some of the Board a little too personal, but, if any one cares not to keep it for his own use, he might pass it along to some enterprising friend who would take and use it. Such calls as that made last year by the Professor of History could thus be answered without causing to the Board any embarrassment.

By recent action of the Board of Trustees of the Newton Theological Institution it has been recommended to this college and to Brown University that Hebrew be introduced into the college course as an elective. It is thought that it would be a gain to ministerial students and to the theological seminaries and at least no detriment to the college course. I was requested to bring the matter to the attention of this Board. With us the introduction of Hebrew would probably not involve any increase of expense. I suggest that it may be well to leave this matter for the present with the Faculty who can report on it a year hence.

4. *Some Supplementary Topics.*

The year now closing has brought new proof that Colby University has in its Faculty men whom other institutions want and mean to have. Three at least have been under great temptation to go elsewhere. The Board certainly needs no such evidence to assure it of the value of its own Faculty. It is, however, well enough to know these facts. Colby will not through any fault of hers submit to disastrous though lawful robbery. Self-defence is a first law of Nature and of this college.

The Faculty desire respectfully through this report to express to the Board their conviction that the degree of Ph. D. should

never be conferred as an honorary degree but only, as is now the custom in the best colleges and universities, on those who by completing courses of study prescribed by the Faculty under conditions also prescribed, shall merit the degree. It seems to the Faculty that Colby in consistency with its past history should do nothing to lower but everything to maintain or raise the value of the symbols of scholarship. The Faculty also submit that for like reasons it might be better if the Board were to confer the degree of A. M. ("in course," at least) only upon such as have been recommended by the Faculty. This degree ought to mean something and the Board, usually, have not at command the time and means to consider the fitness of the applicants. The matter is certainly worthy of consideration and action. The Faculty have no ambition to grasp for power which belongs elsewhere but rather wish to co-operate with the Board to secure the best ends.

There have been received by the President of the college and will be submitted to the Board at its coming meeting communications of a semi-official character respecting the academies in E. Corinth and Charleston respectively. The question is raised whether an arrangement may not be made between the authorities of those academies and this Board by which Colby shall have a fourth Academy, holding to it a relation like that of Coburn, Ricker and Hebron. It will doubtless be regarded as wise to look carefully into this matter. Perhaps not more can this year safely be done than to appoint a committee who shall make careful and thorough investigation of the facts and report the same with their recommendations a year hence.

The relation of the academies to the college should on all accounts be clearly defined and perfectly understood by all the members of the Board. It has been made apparent, since my last report, that such understanding does not exist. In some minds it seems still an open question whether Colby University is one institution and these academies each a distinct institution,

or whether Colby University is the one institution of which the academies are simply departments. In other minds no such question exists, yet a part hold one view and a part the contrary. And to make confusion more complete there is held also the view that Coburn Classical Institute is simply a department, like the department of Chemistry and of History, while the other two academies are distinct though related institutions. This question has an obvious bearing on the legitimate use of funds which by bequest or otherwise have been given to Colby University. The endowment of an institution by funds not designed for a particular department is an endowment of all the departments equally, and gives to them all the same foundation and claim. If the academies are departments of Colby University, then, aside from the endowment and property given them severally and designated for their use exclusively, they are each and all as fully endowed as is the college.

The wording of the plan of union between the three academies and the colleges drawn up by President Champlin and adopted by the Board, is as explicit as human language can be made, to the effect that the name Colby University thenceforth as before denoted the college only and not the college and the academies (or any of them) jointly; that the union was a union of institutions which, thenceforth as before, were to be completely distinct,—four institutions, not one, two, or three; that the relation sustained by the college (i. e. by Colby University) to the academies, one and all, was that of trustee of certain properties belonging to them, to be used for the ends and under the conditions named.

It has been a question whether Colby University under its charter had a right thus to act for other institutions, and in order to remove the existing doubt Messrs. Drummond and Bonney, acting for the obvious interests, not only of Colby University but also of the academies, last winter secured the passage of an act by the legislature of Maine authorizing "the President and Trustees of Colby University" "to take and hold personal and real estate in trust for Coburn Classical Institute,

and other incorporated academies and schools and devote the same to the purpose for which such institution is incorporated." This language is as explicit as Dr. Champlin's and to exactly the same effect. Certainly such men as Mr. Drummond and Judge Bonney would never think of securing for Colby University or any other existing chartered institution the enactment of a law authorizing the institution to take and hold personal and real estate in trust for one of its own departments, i. e., for itself. The absurdity of the thing is too obtrusive and glaring. By the ownership of the land and building of the Waterville Academy and the management of the academy itself for a part of the time the latter was no more constituted a constituent element of the college than was the Elmwood Hotel because owned and controlled by the college. To me it seems too clear for doubt that Colby University is the college and only the college ; that it includes neither all the three academies nor any of them ; that they like it are each and all distinct institutions and not mere departments of an institution ; that they have therefore hitherto acted according to truth in issuing catalogues in which the name of the President of Colby University never appears as their President ; that this Board also has from the beginning acted on the true theory in regarding the endowment of Colby University as the endowment of the college, as also in using all possible influence to encourage those institutions in raising for themselves endowments and making the most and best of all their provisions and facilities ; that those who have given to Colby University and to the academies have also been right in holding to the distinctness of each as a veritable institution and not a department ; and finally that this relation of the college and academies is not only the one which actually does exist but also the one which for all interests ought to continue to exist. But whether this view is right or wrong there ought to be a perfect agreement in the Board as to the true view and its bearing on the Board's action. If the funds of Colby University are as strictly intended for Coburn Classical Institute as for the department of Greek, or of Chemistry, or of History in

the college, the first duty of the Board is to appropriate funds for the supply of those imperative needs which the report of Dr. Hanson will designate. We know what service the Institute is rendering to the college, and that work will be greatly promoted by a small outlay of funds. The needs of Hebron Academy are not less urgent and crying. This extended discussion will perhaps be the more readily pardoned when I add the promise never again to call up this subject.

The college is much indebted to the Baptist church in Waterville, as is this church to the college. This mutual indebtedness is clearly seen and well appreciated on both sides. There has always been a readiness, on the part of the church, to do everything reasonable in promoting the interests of the college. The exhibitions of the different classes are during the year held in the church edifice and during Anniversary week it is at the complete command of the college. Besides, a large part of the students are throughout the year furnished by it with seats. For all this no charge has ever been made. I have been told that the college formerly owned seats in the house. The claim to these was doubtless surrendered when the house was rebuilt and made a "free seat" house. It has occurred to me, knowing well the weight of the financial burdens borne by the church and the limitations of the financial strength to bear them, that it would be only a just and fair act for the college to make to the church an annual appropriation of one hundred dollars in consideration of its yearly use of the house. This recommendation I make wholly on my own motion and believe that the Board will not be the less willing to adopt it because it did not originate with the church.

I trust the Board will pardon the great length of this report, as also any other of its faults, and will give to it such consideration as the nature of its contents may merit.

Respectfully submitted,

GEORGE D. B. PEPPER,

President.

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COLBY UNIVERSITY.

REPORTS OF THE

PRESIDENT AND FACULTY.

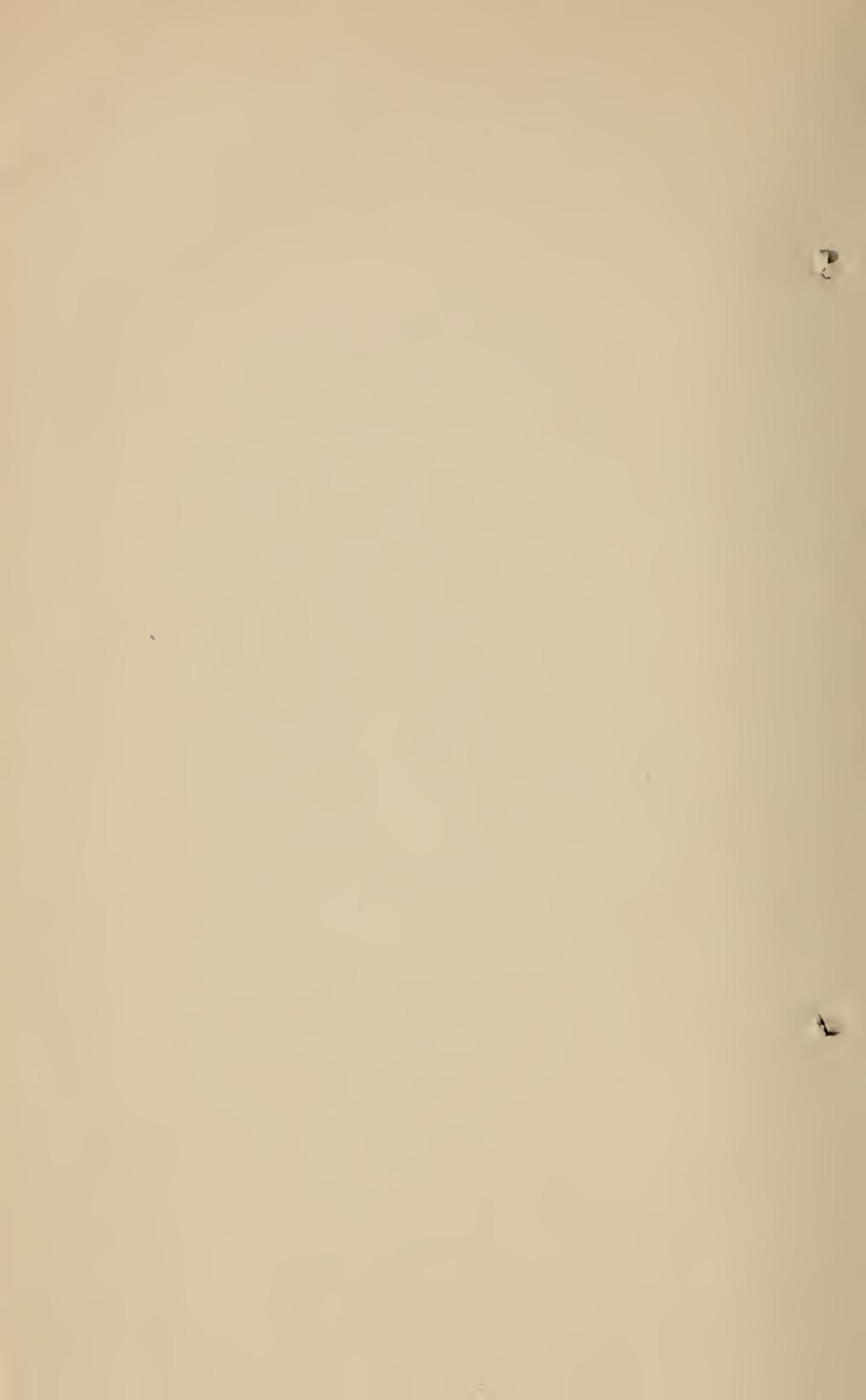
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ANNUAL REPORTS
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OF
COLBY UNIVERSITY.

1888.

WATERVILLE:
PRINTED AT THE MAIL OFFICE.
1888.



COLBY UNIVERSITY.

PRESIDENT'S REPORT.

TO THE BOARD OF TRUSTEES OF COLBY UNIVERSITY:—

Gentlemen: In making to you this my sixth annual report as President, the fact stands vividly to view that since your last annual meeting two of your number have died. Moses Lyford, LL.D., had been connected with the college thirty-four years. A student four years, a professor twenty-eight years, and a trustee two years, he was from the beginning a devoted and faithful friend of the college, and the loss of his valuable counsels and services is no ordinary misfortune. Rev. George W. Bosworth, D.D., a graduate of the college, class of 1837, was from 1865 a trustee. In the discharge of his duty in this relation, he was vigilant, positive, energetic, persistent. The college is greatly his debtor. I have special personal reasons to remember gratefully and affectionately both Professor Lyford and Dr. Bosworth. Permit me to add, that toward all the surviving members of the Board I have and can have only grateful appreciation for their uniform kindness and courtesy.

By reason of sickness I was unable to be on duty during the autumn term. Professor S. K. Smith, D.D., as in former like exigencies, generously accepted the position of President for the time, and discharged its duties. This delicate courtesy and hearty kindness toward me, in taking my place both as President and as instructor of the class in Intellectual Science, added materially to my obligation to him. This obligation also extends to Professor Mathews, who burdened himself with extra work in order to release Dr. Smith for his added duties.

Near the close of the summer vacation, Professor Wadsworth received a call to become Director of the Michigan Mining School. The salary offered was more than double that which he was here receiving, and the position was in other respects regarded by him as extremely advantageous.

He immediately accepted the position and wrote me to that effect, resigning his professorship in Colby University. As the call was to him unexpected, and the demand for him to enter at once upon his new duties urgent, he could hardly be blamed for the consequent embarrassment of our situation. It was at once arranged for the fall term, that Professor Small should take, in History, the elective class that would have been under Dr. Wadsworth. On petition of the class and at my request, Professor Elder taught the Geology in the winter term. The chair has, during the spring term, been filled by W. L. Bayley, Ph. D., a graduate of Johns Hopkins University, and highly recommended for the place by President Gilman and other competent judges. His report, printed with those of the other professors, merits and will receive the careful attention of the Board. His attainments in his department are of recognized eminence.

The Board's election of Shailer Mathews as Associate Professor in the Rhetorical Department has been amply justified by the year's experience. He has been abundant in enthusiasm, energy and effective work. The fruit of his labors, especially in Elocution, has been conspicuously and honorably manifest in the character of the public exhibitions.

Charles E. Adams, M.A., a graduate of Bowdoin College, has through the year had charge of Gymnastics. He has deserved and received the full confidence of Faculty and students for his intelligent work in his department, his manly character and his good influence. No better man could have been secured.

Excepting my own compelled absence in the autumn, the professors have all been able, with scarcely an interruption, to meet their classes regularly and to prosecute their work vigorously. Their reports make fairly clear the nature and amount of the work done, while the report of the Board's Examining Committee will contribute still further to the result. There have been some departures from the old lines. The new courses in English Literature, made possible by adding Professor Mathews to the Faculty, constitute, perhaps, the most notable variation. These courses have been and will be justly popular.

Much has been done in the interest of the college by the Professors, additional to their regular college duties. Visits have been made to our own academies and to other literary institutions, to religious, scientific and educational associations, conventions and other meetings; addresses have been made, sermons preached, papers read, the college publicly and ably represented. Not a few articles and addresses have been published. Professor Rogers, with his characteristic zeal and energy,

has prosecuted his metrological investigations, and has made known in oral and published addresses results recognized to be of extreme value by the highest authorities. Such collateral services the Board will neither overlook nor under-estimate.

Of students the whole number of names appearing in the catalogue is one hundred and nineteen. Another student entered after its publication, thus making the total one hundred and twenty. Of these, twenty-four are Seniors, twenty-one Juniors, thirty-four Sophomores, thirty-seven Freshmen and four Specialists. Twenty-one are ladies and ninety-nine gentlemen. One hundred and nine are from Maine and the rest from "the regions beyond." The health of the students has been almost without exception excellent. One Senior, however, has been unable to be with his class during any part of the year, and in consequence fails to graduate. One Sophomore has been ill during the last weeks of the spring term, for a short time alarmingly ill. The other cases have been much less serious. At one time there was fear that two of the students had varioloid, and a flurry of excitement was consequent; but as the only case within the college walls was found to be chicken pox, the excitement suddenly subsided.

The attendance of students upon required exercises of all kinds, their deportment, their loyal love for the college, their good-will and good fellowship among themselves, their devotion to study and progress in study, and in general, their total attitude and conduct have, in my judgment, been not below but above the general average of former years. I am well aware that I am liable, through prejudice, to judge quite too favorably, and I trust the Board will not rely wholly upon my statements in a matter so vital to the welfare of the college. There have been a few instances of disorder, greatly to my regret. Probably there never has been a year when this could not be said. To realize exactly the ideal is not within human power.

Gymnastic exercise has for a part of the year been required. As this experiment is new at Colby, the attention of the Board is specially invited to Professor Adams' report in its bearing upon this matter. The college has been represented by its Nine in the Maine Inter-collegiate Base Ball League, and with much the same results as in the past. Interference with required class-room work has been reduced to a minimum, and the management of the Nine has heartily endeavored to avoid such interference.

The religious interest in the college has been much as in former years. Attendance at voluntary religious meetings and Bible classes has been

fairly good. The Chapel Service has been much improved by the use of the Vocalion organ, purchased in the early spring. Its power is fully adequate, and the quality of the music is much admired.

Alumni Hall has been twice used by the students for social receptions. The first of these was given by the Y. M. C. A. of Colby, in the early autumn, as a welcome to the new class. The second, in the early spring, was given by the Senior class to their friends in Colby and out. Both were at once pleasant and profitable occasions. The influence of such receptions, in favor of good fellowship and good manners is not slight. Whatever in a college tends to develop the amenities of life supplies a lack in collegiate training, which has been widely recognized and deplored.

The curriculum has been somewhat changed, owing to two distinct causes; the first the introduction of a new Professor into the Faculty; the second the observed failure of the single elective plan to meet the expectation of the Faculty or the wants of the students. As the extent of our elective studies is comparatively limited, and must necessarily remain so, it is judged safe to rely upon the preponderance of required studies to secure steadiness and unity. The electives, as heretofore, fall wholly within the Junior and Senior years, and with some notable additions remain as they were, but each student is allowed to choose from term to term from the courses offered. This is giving satisfaction to all.

Hebrew was added as a Senior elective for the spring term. Professor Mathews has taught it, and his report will sufficiently indicate the result. I call special attention to this as the Board of Trustees of Newton Theological Institution last year requested this Board and the Board of Brown University to introduce Hebrew as an elective. It seems to me not likely that much advantage to our Theological Seminaries will be realized, unless the principal colleges unite in the introduction of the Hebrew into their respective curricula. I would suggest that the matter be left with the Faculty for the present. They are sure to consider it carefully and to act wisely.

Valuable lectures have this year been given by distinguished friends of the college at but small expense: two each by Rev. O. P. Gifford and Professor William Mathews, LL. D., both of Boston, and one each by Hon. N. A. Luce, State Superintendent of Public Schools, Rev. George F. Pentecost, D.D., of New York, and Rev. Asa Dalton, D.D., of Portland. These lectures have been given, as a rule, on Thursday mornings, at 8 o'clock, taking the place of the regular class-room exercises. In this

way the attendance of all the students is secured, Wednesday evening is left clear for the meetings of the societies, and better results are realized. After the purchase of an organ, an "Organ Reception" was given on a Wednesday evening, and the public were invited. The entertainment was of a high order, and amply justified all the labor and expense involved. The Prudential Committee, in the failure of the Board to condemn such action in past years, have allowed the money requisite for the extras above named. The amount has been about one hundred dollars.

The second General Catalogue has this year been published, and a copy sent to each of the Alumni. Its preparation has involved an incalculable amount of labor and of microscopic care. Professor Hall has spared no pains to make it thoroughly accurate, and has attained that eminent success which we have all learned to expect of him in such work. In order to bring before the Alumni some facts of interest as to the college, not of a nature to be shown in the catalogue, I prepared and had printed a circular of three pages and caused a copy to be put in each catalogue sent out to the Alumni. I submit this to the attention of the Board also, as in some sense a part of this report.

The college has continued its connection with "The Commission of Colleges in New England on Admission Examinations," and has been represented by members of the Faculty in the meetings held by it and by its Permanent Committee. The expense of this connection is but trifling and the benefits are doubtless sufficient to warrant it.

The Board cannot fail to take note of some changes effected during the year on the college grounds and in and about the buildings. Among these are the renovation and additional furnishing of the Gymnasium, the purchase of a new organ for the chapel, the introduction of the city water into the college buildings, including Ladies' Hall and the President's house, the placing of an ample and decent water closet in North college, and of a water closet and bathroom in Ladies' Hall, the commencement of an improvement of the campus according to the plans of a competent landscape gardener, the creation of an ornamental lawn in front of Ladies' Hall, and in general, an improved appearance of the premises. All this has cost money, and the Prudential Committee have taken the responsibility of its expenditure, as also of meeting some obvious necessities of the departments of Physics and Natural Science not provided for by action of the Board at its last annual meeting. It is for the Board to judge of the wisdom of such expenditure. The Committee have, I am sure, endeavored to keep within the limits of their authority, and to do that only which the interests of the college

demanded. I know that the changes in Ladies' Hall were strictly necessary, and that without them, or something equivalent, the Hall would have been deserted. It is now decidedly and deservedly popular. This is due in large measure to the changes named, and not less to the new matron, the widow of Rev. H. V. Dexter, D.D. She is in all respects admirably adapted to the place. I am happy to be able to say that she purposes to remain permanently. The Librarian's report will make mention of the additions to the Library by gift. The gift of a valuable cast of statuary by the Junior class has mention in the Art report. These gifts are tokens of appreciation, favor and good-will, both without and within the college.

The special attention of the Board is called to the following matters. As to some of them action is necessary, and as to the others, at least desirable.

Our present class-rooms are too few and several of them quite too small. Relief is urgently needed.

The Observatory is nearly undermined and must be moved, while the department of Physics requires and must have more and better accommodations. I submit with this report and as a part of it the printed letter of Professor Rogers describing a building which at moderate cost would provide for Observatory, department of Physics and his special Metrological work.

Professor Elder requests better and more ample room for his laboratory work. By the creation of a new department, the character of his work has in part been changed, and he suggests the erection of a building at a cost not much, if any, greater than that of the one desired by Professor Rogers. Is it practicable, is it possible, to secure from friends of the college special gifts sufficient for both these buildings? If not, can gifts for one be secured, and the other be built from the funds of the college? I wish only to raise inquiry and lead to investigation. The Board will surely be glad to do everything that is wise and practicable for Professor Elder, in recognition of his protracted and brilliant services for the college. That his present quarters are wholly inadequate to his present and prospective needs, is certain. The only question is, how best to give the needed relief.

Professor Adams calls attention to the desirableness of additional room and conveniences for the department of Gymnastics. His view is doubtless in the main correct and worthy of the Board's attention. It is clear to my own mind, however, that the first duty of the Board is to provide for the departments of Chemistry and Physics.

The question of the election of Professor Adams to continue in charge of the department will come before the Board. I have reason to affirm that his services can be secured on terms altogether reasonable; and to allow him to leave would be little less than a disaster. It is the desire of Professor Elder to surrender to Professor Adams the instruction hitherto given by him to the Freshman class in hygiene, and Professor Adams is willing, and amply qualified, to take it, while it also naturally falls to him, as having the oversight of the physical training of the students. I will, if desired, make further oral explanation to the Board as to Professor Adams' election.

Provision must be made to fill the chair of Mineralogy and Geology. Professor Bayley was engaged for the present term only, and neither he nor the Board is under any obligation beyond this term. It will doubtless become evident to him before the close of the term whether he will care to continue in the position, if desired; and the Board can at its meeting obtain all the information necessary to guide intelligently its action.

The salary of Professor Mathews cannot with justice be left at the present low figure. The amount and quality of his work make this quite too obvious to require argument. Whether the salaries of the other professors shall remain as they are, with the existing inequality of amount, is also worthy of consideration.

The prominence of the students and graduates of Colby in the work of education has led to the suggestion by more than one of its distinguished friends, that the science of Pedagogics should here receive special attention. My judgment is, that it is entirely impracticable to create a department or chair of Pedagogics. A course of ten or twelve lectures might, however, be given during the year, perhaps on Thursday mornings, to the whole college, by some master in the science. Ten each year would, for the four years, give a series of forty lectures. In order to accomplish this, an adequate appropriation would need to be made.

The extension of the winter term to ten weeks, and the consequent shortening of the spring term to fourteen, has been a gain; but it seems to me desirable to begin and close the spring term a week earlier than at present. Dr. Hanson informs me that the Institute can well enough adjust itself to this change.

The report of the Librarian merits special attention. He feels none too keenly the needs of the Library. Money expended for it is, under the present management, put to the best possible use. All should be allowed to it that can be in consistency with other pressing demands.

In closing, it gives me pleasure to say that there are many evidences of increasing good will toward the college, that the prospect for the incoming class is unusually good, and that there is all reason to have heart and hope, while we also continue to strain every nerve to do better work and more of it. One of the most hopeful indications for the future is the increased and increasing interest in the affiliated academies. Ricker Classical Institute rejoices in a new and elegant building, while Hebron anticipates a like triumph in the near future. With the blessing of Almighty God, our college, our academies, our cause will prosper in the future as in the past, and more abundantly. Upon his blessing, not upon our own resources, it is for us devoutly to rely.

Respectfully submitted.

GEO. D. B. PEPPER.

DEPARTMENT REPORTS.

Department of Intellectual and Moral Philosophy.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:—

In the Department of Intellectual and Moral Science instruction was given to the Senior class in the autumn by Professor Smith, covering the First Division of Psychology, i. e. The Intellect. The undersigned in the winter term took the class through the Second Division, or The Sensibility. McCosh was used as a principal book of reference, while the direct instruction was by lectures. Hectographed copies of the full outlines of these were furnished to the members of the class and were the basis of recitation.

Concurrently with this the class was taken through a course in The Evidences of Christianity. Fisher's "*Grounds of Theistic and Christian Belief*" was used as a text-book. Such parts of it were selected as were most profitable for study and together made a connected course. The endeavor was to call attention especially to the more important positions and arguments, and, by free discussion, to gain a clearer insight into the subjects and a greater facility in handling them. About the same amount of time was given to this as to the preceding course. In both courses articles were prepared and read by the members of the class.

Throughout the spring term Moral Science has been taught and President Robinson's new work "*The Principles and Practice of Morality*" used as a text-book. The book is able and valuable, and well fitted for its purpose. The work done by the class as a whole has been creditable and profitable, and by a considerable portion of the class, of a very high degree of excellence.

No course of instruction in the History of Philosophy has been given, but as a partial substitute topics have been assigned in the spring

term to the several members of the class and papers written and read by them, together covering the more important developments.

During one-half of the spring term the Freshman class has been met on Thursday mornings for lectures and discussions in Christian Ethics. The great utility of these exercises is unquestionable.

Respectfully submitted,

GEO. D. B. PEPPER.

Department of English Literature.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:—

The undersigned presents the following report of the work done in the department of English Literature during the past year:

Under the present arrangement of studies in the College one recitation a day throughout the Junior year is given to the English Language and Literature. During the first term of the year, in consequence of the absence of the President, the Professor in this Department gave instruction to the Senior class in Psychology. During the rest of the year the time at his disposal has been devoted to English Literature. The class having already in their Sophomore year studied under the Professor the Anglo Saxon and Early English and also the poetical works of Chaucer, and in the first term of the present year, under Professor Mathews, the works of Spenser, their attention has been more especially directed in the last two terms to the works of Shakespeare, Milton, Bacon, Pope, Wordsworth, Tennyson and Keats. These authors were each made the subject of careful study for periods varying from three to six weeks. Time was thus allowed for forming on the part of the student a somewhat intimate and critical acquaintance with the most characteristic productions of several of the leading authors in the language. In addition to this special study the class gave some time to a more general survey of the whole field of English Literature, studying its history, the influences that have tended to promote and modify its development, its relations to the political and social life of the people, and its share in determining the drift and direction of that people's progress.

The Class have manifested a very commendable interest in the study and seem to have derived a good degree of profit as well as pleasure from their work in the department.

SAMUEL K. SMITH.

Waterville, June 16, 1888.

Greek Department.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:—

The work done in the Greek department during the past year has been nearly the same as that of the preceding year. The Juniors, however, who would have read Greek Tragedy in the fall term, took History instead, in anticipation of the absence of Prof. Small during the coming year. The understanding is that they will take this omitted study in the coming fall term, in connection with such of the next Junior class as may elect the Greek.

The Freshman class, in the fall term, read selections from Herodotus and Thucydides, with the customary review of the Grammar and a weekly exercise, in review, of Greek Composition. In the winter term the class read the 1st, 2d, and 9th Books of the *Odyssey* of Homer. In Grammar they took the discussion of the structure and formation of the Greek verb, with special exercises in the derivation of Greek words. In the spring term the review of the Grammar was completed with the discussion of the laws of Greek syntax, and the class had one exercise weekly in Greek Composition. In the first half of the term, they read portions of Xenophon's "Memorabilia of Socrates," selected with special reference to obtaining a just idea of the man, his method of reasoning and his philosophical and religious opinions. In the last half of the term they read selections from the Greek Lyric Poets. To each member of the class was assigned a theme for an essay, or a passage from one of the authors read for a free and elegant translation.

The Sophomore class, in the winter term, read from the Greek Orators instead of Tragedy, as has been done by several of the preceding classes. They took two orations of Lysias,—one of the earliest of the Attic Orators,—and two of Demosthenes, in whom Greek oratoric art culminated. In the spring term, the class took the oration of Demosthenes on the Crown, which, on account of the shortness of the time, they were not able to complete. During the reading of the orators written lectures to the number of twelve were delivered to this class.

In the spring term a class of eight Seniors, who had elected the Greek, during their ten weeks of study, read in the Gospels and Epistles of the New Testament. With this class considerable time was given to reading at sight in the Gospels and in the book of the Acts of the Apostles.

I am happy to certify that very creditable work has been done during the year by all the classes above named.

It is not so easy now as it has been in past years to secure extra work in this department. During the past term, however, one member of the Freshman class has read to me privately, and in an admirable way, an oration of Pericles (from Thucydides), and the Funeral Oration of Lysias, the most difficult of the extant works of that author.

Respectfully submitted,
J. B. FOSTER.

Waterville, June 18, 1888.

Department of Modern Languages.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:

Instruction in this department has been given to the Senior, Junior, and Sophomore classes, during the past year.

The Senior class have had required work extending through the first and second terms. Owing to changes made in the course of study, this class had one term more of German than any preceding class. The opportunity thus afforded was employed in advanced translation, with accompanying criticism and word-study, of Schiller's classic drama, *Wilhelm Tell*, and selections from Heine's *Prosa*. The results attained were highly satisfactory in the case of nearly all the members of the class. It was expected that other studies would be offered for the election of the class in the second term, but this was found impracticable, and German was substituted. Under these circumstances the degree of success achieved by the work of the term was surprising.

The Juniors have had four classes a week in elementary German during the third term. The new grammar of Joynes-Meissner has been used for the introductory work, paradigms, and syntax, preparing the class to translate about thirty-five pages of Deutsch's Reader.

By the revision of the curriculum this single term's work becomes the entire amount of required German in the course. An opportunity for elective study is given however, in the first and second terms of the Senior year. The fact that German is taught in very few of the high schools in our state, leads those who purpose to become teachers, to prefer giving elective work to studies more directly available in the schools. The educational effect of this will be, that few will obtain in college the mastery of the German language which is elsewhere held to be essential to advanced scientific and literary study.

The elective in French, offered to the Junior class in the winter term, could not be taken without the loss of a portion of the course in history, displaced for the present year. Only two decided to elect French, and to these was given advanced historical reading from Crane and Brun's admirable selections relative to the French revolution. The entire book of 274 pages was read with manifest profit and interest.

The elementary work in French began with the opening of the Sophomore year and continued through the fall term. The new grammar of Prof. Whitney was used as a drill-book, and completed as far as Part Second. After about four weeks, translation from Rougemont's descriptive and historical reader, *La France*, was added to the grammar study.

Part Second of the grammar, and further translation from the same reader, was taken up for the work of one-half of the second term. The remaining time allotted to required French amounted to about four weeks of the last part of the third term. In these few lessons, a rapid review of the French verbs was taken, and about 100 pages of a work on the French revolution carefully translated. Considerable time was given to reading the French of each lesson, and exercising each student in pronouncing, with profitable effect considering the time employed. The work of the year in the French language has seemed more satisfactory than usual, to teacher and pupil. It gives me pleasure to commend the industry and attainments of the class as shown in the daily lessons and the final examinations.

A course of lectures on the history and development of German literature has been given to the Junior class on Thursday mornings of the present term.

Respectfully submitted,

EDWARD W. HALL.

Waterville, June 20, 1888.

Department of Chemistry.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:—

I beg leave to submit my report on the work of the classes under my instruction during the college year 1887-88.

A material change was made in the order of studies at the beginning of last year, extending the time given to Chemistry. As the work of the department now stands, one term is devoted to Physiology and two to Chemistry, all in the Junior year. As soon as full provision can be made for Biology, it will, no doubt, be greatly to the advantage of the college to have the Chemistry extend continuously through the year.

Throughout the first term, on five days a week, General Chemistry is taught by lectures and printed outlines. Each lecture is followed by a recitation. During this term a course of lectures on Hygiene is delivered to the Freshman class.

The second term is devoted to advanced Physiology. The method of teaching followed is that of recitation from a text book, with class discussions, lectures and the use of the microscope.

The whole of the third term is devoted to Laboratory Practice and Qualitative Analysis. In the laboratory each student works from printed outlines and explanatory lectures, and then gives in recitation the results he has obtained by his own research.

This kind of discipline is eminently qualified to give the best results of scientific culture in the formation of scholarship and character. It aids, and is aided by, all other studies in the college course. The maturity of mind gained in the studies of other departments is utilized by it, and the benefits thus received it returns with interest through the stimulus it imparts to the desire for knowledge, by the exercise it gives to thought and reason, by its constant demand for accuracy and discrimination. From the eagerness with which our students seek all that is offered them in the department, from the readiness with which they devote time, quite beyond college requirements, to hard work, I cannot help feeling that it is greatly to the interest of the college to provide full and generous equipment for efficient teaching.

One thing which hinders greatly you have already considered,—the want of a laboratory. There is ample room on the campus for another building. A Chemical Laboratory, thoroughly equipped and containing all the rooms required by the department of Chemistry, would, I believe, be in accordance with the wishes, as well as the best interests, of our students, both those who are now with us and those who are to come. Such a building need not cost more than ten thousand dollars.

The work of the classes has been of exceptional excellence. The interest of the students in their work, good from the first, has grown steadily throughout the year. There has been evident, also, a manly desire and intention, not only to conform to all college requirements, but to do everything that a teacher might request.

Last year you allowed me an assistant from the Senior class. This favor has been greatly prized by me on account of the vast amount of work that has to be done in preparing for classes in Chemistry. I trust that you may see fit to continue the appropriation.

Respectfully Yours,

WILLIAM ELDER.

Colby University, June 16, 1888.

Latin Department.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:—

The Latin of the year has included four terms required and one term elective, viz: the three terms of the Freshman year, required, the first term of the Sophomore year, required, and the third term of the Junior year, elective. The Latin elective, usually offered in the second Junior term was this year omitted in accordance with the arrangements made in view of Professor Small's anticipated absence next year. The authors read in the Freshman year were, first term, Livy, Book XXI; second term, the Germania and Agricola of Tacitus, and the first Book of the Odes of Horace; third term, the remaining three Books of the Odes, together with selected Epodes, the Carmen Saeculare, and selected Satires. The reading of the Sophomore fall was in the Histories of Tacitus, the class completing nearly three Books. In the elective term in the Junior year selections were read from the works of Catullus, Lucretius, Propertius, Ovid, Lucan and Juvenal. In addition to the above, there was read "at sight" by the Junior elective section, a portion of the letters of Pliny, about fifty pages.

The principal features characterizing the instruction in this department in former years have been retained, with such changes and adaptations as the individual peculiarities of new classes and special circumstances suggested. The work of the first year, and especially of the first two terms, is regarded as furnishing the proper opportunity for training the student in right mental habits, accuracy, fidelity, honesty and thoroughness. Yet in this part of the course also, there is not forgotten the view which receives increasing prominence as the student advances, that the chief aim of classical instruction should be the development of a power to appreciate the Latin authors as literature, and as masters as well of the art of thought as of the art of expression. The student is given to understand that in his translation in presence of the class, there is expected of him the result of his best skill and judgment, and as such his work will be submitted to the friendly criticism of his classmates as well as of his instructor. He is given an opportunity to defend his views against the strictures of his critics, if he be able to do so, and the recitation becomes accordingly a somewhat familiar and informal discussion in which, either voluntarily, or in reply to questions from the instructor, nearly all participate. By treating with respect the opinion of every student, provided it is original and his own, the atten-

tion and interest of the class is pretty generally secured throughout the hour. The subjects of discussion may be suggested by questions of interpretation, of style, or choice of words, the analysis of the thought, the study of the author's personality, his prejudices and idiosyncrasies, or by allusions in the text bearing upon historical events or persons. Everything that may help to illuminate motives or in any way serve to restore the scenes and revivify the sentiments that inspired the author, and present him to the imagination as a real and living personality is suggested to the attention with the end in view, to develop and strengthen that power of intellectual sympathy which is the best gift of a liberal education.

Of the special expedients adopted for promoting increased interest and exertion on the part of the student, and described in former reports, all have been continued with satisfactory results. That of "optional" work for students qualified to undertake more than the required task of the day, has been put in practice with more than the usual success. In the Sophomore fall, in the Histories of Tacitus, about one-half the class as a rule, each day reported themselves as prepared on the extra work; and in the Freshman third term, in Horace, the number so reporting reached the average of three-fourths.

The requirement of occasional translations in writing, of reports by individual students on topics assigned for special investigation, the writing upon the blackboard of Latin translations of English sentences modeled upon the Latin text, or else illustrative of the methods of expressing in Latin, modern happenings, names, dates, etc., and one or two others, are features of the class-room exercise that have been mentioned in former reports. The method first put into practice last year of varying the regular daily exercise by the assignment, occasionally, of a passage of three or four times the usual length to be prepared for translation merely without critical study, has been continued with good results. The Freshmen in the winter read the Germania in this way.

Methods first employed this year are, first, the memorization of certain passages, chiefly such as are met with in quotation by English authors and speakers, especially from Horace and Tacitus; and, second, the requirement of oral translations given in response to dictations of English sentences. These English sentences are modeled upon passages in the Latin lesson of the day, and after the class have closed their books, the sentence is dictated, a moment for reflection is permitted, and then some one individual is called upon for the Latin translation.

In the fall term of the Sophomore class, the Thursday mornings on which, in accordance with a vote of the Faculty, no exercise requiring previous preparation on the part of the student should be given, were assigned to this department, and were occupied during the first half of the term, by exercises in translating Latin at sight, and in the last half by a course of five lectures on the Science of Language. In the coming year the course will be extended to occupy the Thursday morning hour throughout the term.

Respectfully submitted,

JULIAN D. TAYLOR.

June 16, 1888.

Department of Mathematics.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:—

In the Department of Mathematics an important gain has been made the past year by completing the work in Geometry, Algebra, Plane and Spherical Trigonometry with the Freshman class. A fortunate change of text books and other favoring circumstances have rendered it possible to do this. A short course of Analytical Geometry, a much needed element in a general education, can thus be added to the required studies. This will be taught the coming winter in place of the Spherical Trigonometry which has heretofore been the mathematical study of the Sophomore winter.

The Freshman and Sophomore classes have both done good work during the year. A large number of students could be named from each class who have shown exceptional ability in dealing with mathematical subjects. The recent improvements in text-books and in methods of teaching have done not a little in arousing the interest and holding the attention of these classes. Less complaint is heard against Mathematics, and a better appreciation of its discipline and practical uses is apparent.

LABAN E. WARREN.

Waterville, June 13, 1888.

Art Department.

Lectures on Art have been delivered to the Senior class at intervals during the Fall and Spring terms. This class in their Junior year committed themselves to an interest in Art by presenting to the college a cast of the "Diana with the Stag." This interest has increased and a

demand has been made for more than the usual number of lectures. Several friends in the city, interested in the subject, have favored us with their presence and encouragement in the lecture-room. The enthusiasm thus awakened has seemed to influence other classes as well. The present Junior class following the example of their predecessors present to the college at this commencement a cast of the "Dying Gaul."

In connection with the Art Department two suggestions seem to present themselves: first, the larger place which the History of Art demands in the present education, and second, the necessity for an Art Gallery for Colby University.

If anything need be said in favor of a larger place for the History of Art in a college curriculum, it is, in the first place, that it has come to be in an important sense the interpreter of history in general. In no way do we get nearer the mind and heart of the great nations of antiquity than by the study of their development of Art. The historian is eager for the least fragment of their artistic productions. Egypt, Assyria, Greece, Rome have been ransacked for such remains, and all new writers upon these old monarchies introduce the discussion of art development as well as that of politics, religion or literature.

Again the current writings of our own times and language have so much of art incorporated into them that they are unenjoyable and well nigh unintelligible without a fair knowledge of the great artists of the world and their principal works.

Art has come to be a large factor in American thought and life. Galleries and schools are in every large city and thousands of dollars are annually spent for statues and paintings. Modern building recognizes the great architectural systems of the past and a knowledge of these things is as necessary and practical as a knowledge of natural science or of political economy.

That Colby University needs an Art Gallery is too evident to demand discussion. The weakest argument is that other colleges are favored in this respect. A consideration of greater force is, that if art is to be taught at all, it must largely be taught by object lessons and no better means can be had for this purpose than a good gallery. Many of our students have no means whatever of examining any works of art unless the college furnish the opportunity.

Lastly, a commendable enthusiasm has been aroused among the classes to present to the college valuable copies of the world's masterpieces. A friend of the college recently gave fifty dollars with the

promise of more for the purchase of needed illustrations of art.* Other friends will doubtless do the same. A suitable apartment for the placing of these gifts seems to be one of the demands which the college must soon meet.

One hundred dollars (\$100) is asked for the current expenses of the Art Department for the coming year.

Respectfully submitted,

LABAN E. WARREN.

Waterville, Me., June 13, 1888. .

Department of History.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:—

Although there have been numerous changes from the regular order of studies during the last year, the work of the students in History has been as satisfactory and profitable, so far as I can judge, as in any year since the department was established. There has been a slight increase in the amount of time devoted to History and Political Economy, and during the past year one more period of Modern History has been studied than by any previous class.

That the students might lose nothing by my absence next year, it was necessary to unite the Senior and Junior classes for work in History during the fall and winter terms. The subject for the fall term was the French Revolution, and the time devoted to it was four hours a week. I printed a pamphlet of ninety-six pages, containing a sketch of the causes and incidents of the Revolution. This outline served as the basis for recitation and as the point of departure for topical work. The experiment of uniting two classes gave unexpectedly favorable results.

There seemed to be a strong spirit of emulation and a determination by each class that it would not be behind the other. As a consequence, the average work was of a higher character than I have been able to get in any previous term. I am confirmed in the opinion expressed in my last report, that no single period of History contains more timely lessons, and is worthier of a place in a course like ours than the period of the French Revolution. Nearly every socialistic expedient, which is to-day prescribed for the ills of society, was tried and found wanting, between the years 1789 and 1795. The history of these failures is the most impressive commentary on the schemes of American Socialists.

*Mrs. Arthur F. Drinkwater, Ellsworth, Me.

During the fall term I lectured to the Junior class one hour a week, on the history of European Civilization. The lectures gave an outline of progress from the foundation of the Roman Empire to the beginning of the German Reformation.

During the winter term History was elective four hours a week. It was chosen by eleven Seniors and seventeen Juniors. The subject was the Constitutional History of the United States. I printed a pamphlet of one hundred and twenty-four pages, containing an outline of events and a few important political documents from 1776 to the close of the reconstruction period. The class discussed our constitutional progress, as illustrated by these documents, to the passage of the Kansas-Nebraska bill. It is my aim to teach the students taking this course how to use historical evidence. This seems to them dry work, and they consequently take less interest in it than in a kind of historical study which has much less educational value. It is difficult to measure the effect of instruction of this sort. If I judge correctly, some of the students learn to appreciate the importance of the habits of study which it forms, and all improve as they get accustomed to the method of work. I have seen no reason to abandon my belief, that it should be persisted in, and that the training which it gives is not the least useful element in the discipline which the college now affords.

The summer term has been devoted to Political Economy,—four hours a week for ten weeks with the Senior class, and four hours a week for seven weeks with the Sophomore class. Walker's Political Economy has been used, though rather as material for investigation than as a text book. His views on the theory of money, on the law of the distribution of products, and on free trade, are so unsound that in refuting his arguments an excellent opportunity is had to impress the lesson that error is none the less erroneous when made into a book. I have encouraged the classes to examine industrial facts for themselves, and have dictated the principles derived from that examination and discussion. I also printed a pamphlet of forty-three pages, containing a summary of the arguments, both for free trade and for protection; and a brief abstract of Rev. Dr. T. E. Brown's *Studies in Modern Socialism*. With the Senior class I devoted two weeks to the discussion of our American tariff policy. The view which I have taught is:—1. Free trade is a theory which would apply were the world a political and industrial Utopia; it is even now a wise national policy in certain instances. 2. A tariff for protection is a simple, just and effective expedient for developing the industries and resources of countries richly

and variously endowed by nature. 3. The United States is such a country, and the weightiest political and social as well as economic considerations urge the duty of tariff self-defence. 4. While protection, to be effectual, must be as invariable as possible, it is always competent for legislators to reform the tariff by removal or alteration of obsolete and unnecessary provisions.

Under the present arrangement of studies, History and Political Economy are *required* one and one-half terms, *elective* two and one-half terms. It is unnecessary to say that until opportunity is given for more attention to historical work, our curriculum does not meet the present demand. It is my wish to offer courses in two more terms, thus making it possible for those students who desire it, to continue their study of history through two full years.

Having given this year the amount of instruction which would regularly have been extended through two years, I can, without loss to the students, avail myself of the privilege of absence allowed me by vote of the Trustees at their last meeting. I propose to devote my time to sociological study, and I hope to serve the college better by means of this advantage than would have been possible by continuing the routine of the classroom.

Respectfully submitted,

ALBION W. SMALL.

Waterville, June 20, 1888.

Department of Physics and Astronomy.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:—

No essential change from the outline presented in the last report has been made in the courses of Physics and Astronomy during the present year. Experience has confirmed both the unwisdom of attempting to conduct the instruction in Physics in accordance with the methods employed in what is popularly called the New Physics, and the wisdom of deferring practical work in the laboratory until the student has obtained a good general knowledge of the whole subject from text book instruction supplemented by lectures and illustrative experiments.

There is an additional reason for pursuing this course which has great weight. The entire Sophomore class has Physics for one term only. Commencing with the Junior year this study is elective for a course of two terms. It has seemed to me advisable therefore to select a text book of medium grade and to limit the instruction during the work of

this term for the most part to the text of the author, in order that every student might be able to acquire a sufficient general knowledge of the entire subject to be able to give instruction in it after graduation if he should have occasion to do so.

In the elective course of two terms, the first term is spent in the completion of the text of the author selected, and in a general review of the whole subject. In the second term it is the purpose to have each student perform personally every experiment which has been previously performed by myself, and beside this to undertake experimentally, various practical problems involving weighing, measurements of dimensions and measurements of time, etc. The latter part of the third term will be devoted to practical work in Electricity for which there is now an excellent outfit of working apparatus.

An experience of one year has developed several needs which ought to be met as soon as practicable. Among them may be mentioned the following: First, the recitation room is entirely unsuited to laboratory work. In order to do satisfactory work, the laboratory should have piers insulated from the rest of the building; it should have water and gas, and should have permanently set work tables. For experiments in optics there should be a convenient means of securing the total exclusion of light.

A second urgent need is the purchase of duplicates of such inexpensive pieces of apparatus as are needed for continuous use by the student, such as balances, measuring callipers, resistance coils, galvanometers, etc. The Department is unusually well supplied with illustrative apparatus for use in connection with lectures, but there is very little useful working apparatus except such as has been added during the past year. Hence great difficulty was found in planning work for the last class in an economical manner. Each student ought to have the proper apparatus with which to do his work and he should be held solely responsible for his work. Five hundred dollars ought to go far towards supplying the present needs in this direction.

Inasmuch as the regular annual appropriation is not sufficient to meet the current incidental expenses of the laboratory, it is recommended that a special appropriation be made to meet the want in this direction.

The annual appropriation of \$200 has not been found to be sufficient to cover the actual incidental expenses, but it has not been thought advisable to overdraw the account. Whenever additional expense has been incurred, the funds have been drawn from private sources.

It will be remembered that a special appropriation of \$150 was made

at the last meeting for apparatus. This sum was wholly expended in electrical apparatus. The laboratory is now well equipped in this direction.

In order to meet the demands of the Department, especially in view of the post-graduate instruction which has been given during the past year, it was found very desirable to purchase an Astronomical Clock and time-recording instrument. The Prudential Committee kindly allowed the purchase of a set of instruments of Wm. Bond & Sons of Boston at a cost of \$450. These instruments will be of essential service in connection with instruction in Astronomy. By their possession the University has acquired the necessary facilities for the establishment of a Seismological Station at Waterville, for the detection of earthquakes, and for an automatic record of the time of their occurrence. The American Seismological Society has therefore forwarded two instruments which will be placed in service at the close of the summer vacation.

The original investigations relating to the laws of the diffusion of heat in metals made during the last academic year have been published in the Proceedings of the American Microscopical Society. The memoir has been bound in paper covers making a pamphlet of 135 pages. These investigations have been continued throughout the current year. They will form the basis of a paper which will soon be published in the Memoirs of the National Academy of Sciences.

Respectfully submitted,

WILLIAM A. ROGERS.

Waterville, June 20, 1888.

Department of Rhetoric.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:—

On entering upon the work of the department of Rhetoric last September, I adopted as a text book for the Sophomores, A. S. Hill's "Principles of Rhetoric," and used Whately's "Elements of Rhetoric" as a reference book. During the winter term the class used the lately published "Practical Rhetoric" by Prof. Genung. The two text books have complemented each other allowing the work done in the class-room to grow more and more practical.

The use of these books, as a basis for recitation by the class, has been supplemented by considerable drill in the writing of themes, analyses, abstracts, etc. In addition to their other written work the Sophomores

have passed in a theme every fortnight, and the Juniors one every three weeks.

During the fall term, owing to the absence of the President, I met Prof. Smith's division in the half-term studies of Logic and English Literature. With the class in Logic the text-book used was Jevons's "Lessons in Logic." The work done in English Literature consisted wholly of original investigation on the part of the student, directed and summarized by lectures.

During the first half of the spring term the Sophomores took up Deductive Logic. The text-book used was that of Jevons.

During the spring term I met a division of the Seniors in Hebrew. The class was able to cover enough ground to allow such of its members as may so desire, to enter upon advanced work at Newton Theological Institution. The text books used were those of Professor Harper.

In the department of Elocution, work has been done with all the four classes. During the fall and winter terms the Freshmen, Sophomores and Seniors; during the spring term, the Freshmen, Juniors, and Sophomores (the last class for a half term) have each met me one hour a week. The course as now laid out includes reading, declamations, and extemporaneous speaking as well as strictly elocutionary training.

The usual number of public exhibitions have been held during the year. The total number of private rehearsals given for the same is 433.

A new elective course in advanced work in English is offered in the winter term of the Senior year.

Respectfully submitted,

SHAILER MATHEWS.

Waterville, June 20, 1888.

Department of Mineralogy and Geology.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:

In accordance with the usual custom, I herewith present a report of the work done in my department during the term just passed, and a brief synopsis of that which should be attempted in the near future.

Upon my arrival in Waterville, I found that the two courses assigned to me for the term were Economic Geology with the Senior class, and Mineralogy with the Juniors.

The course in Economic Geology was carried on as well as possible, in view of the fact that no specimens of economic products were to be found in the college collections. The course embraced a series of

recitations from Williams' Economic Geology, a few informal talks, and an occasional lecture on topics not sufficiently treated in the text book.

At the conclusion of this course, at the request of the students, nine lectures were given on "Volcanoes and Volcanic Phenomena." These lectures were illustrated by specimens of lava and other products of volcanic action, and by relief maps of the two great volcanoes, Vesuvius and Etna.

The second course—that with the Junior class in Mineralogy—began with a treatment of the fundamental principles of crystallography. This was followed by a study of the physical properties of minerals, and a systematic practical application of these to the detection of the individual mineral species. In this it has been the endeavor to ground the students thoroughly in those general underlying principles which distinguish Mineralogy of to-day from the Mineralogy of a few years ago, and cause it to be classed among the sciences. Not only has attention been directed to the shapes, which crystallized bodies assume when allowed to take on the forms which their chemical nature demands, but it has been shown that all these innumerable shapes are necessitated by the great general law of symmetry. In addition, it has also been shown that this same law underlies and controls all the other properties of minerals, which thus become merely its embodiments in specific instances.

The truth of this great principle has been demonstrated by the practical study of about one hundred and fifty wooden and glass models of crystals, and the handling of numerous specimens of crystallized minerals. The light which the microscope has yielded in this direction, could be only incidentally alluded to, as neither were microscopes nor microscopic sections at hand for class use. Within the last few days, however, an instrument has been received from the University of Wisconsin, as a loan during the balance of the term. It is hoped, with its aid, to prove the truth of many of the statements which have been made in the class-room, but which were not demonstrated.

The collections of the University remain practically in the same condition as at the beginning of the term. The mineral collection is now undergoing a complete re-arrangement. The four partial collections, which were scattered in different portions of the rooms devoted to Geology and Mineralogy, have been gathered into one large study collection. The specimens have all been re-labeled and are now being catalogued. A neglect to attend to the careful labelling and cataloguing of the collection has already resulted in the loss of not a little in the value of many of the specimens. No attempt has been made to found a

cabinet collection of minerals for exhibition. Such a collection would cost a large amount of money, which could, under the present circumstances be much more profitably spent in other ways. Even if such a collection were contemplated, there is no place in which it could be exhibited.

During the coming year the Mineralogy course should be carried on further. The optical properties of minerals should be studied, and thus a groundwork afforded for an introduction into that youngest and most fascinating of all sciences, petrography. For this purpose it will be necessary to provide the department with microscopes adapted to petrographical study. It will also be necessary to provide hand specimens and thin sections of rocks, and apparatus for the preparation of the latter from the former.

Steps have already been taken to secure from the United States Government a collection embracing specimens of all the most important rocks occurring within the limits of work of the U. S. Geological Survey.

After devoting some time to the examination of the materials of the earth's crust, an investigation should be made of the forces which have ever been active in building it up and tearing it down, and have finally succeeded in fitting it for man's abode.

Following Dynamical Geology should come Historical Geology—the tracing of the successive stages in the earth's history in the records left to us in the rocks and the ocean—and finally Economic Geology. In order to successfully teach, in a short year, the results of so very many years' work of so very many able men, every facility should be afforded to impress upon the student's mind, with as little effort as possible, the reasons which have led geologists to affirm certain things and to deny others. A mere statement of results is manifestly undesirable, nor is a mere statement of *all* results *possible* in so short a time. All that can be hoped for is the pointing out of the method of scientific thought. To do this successfully charts, specimens, maps, and pictures are absolutely necessary—and of such we have none.

If it should meet with the approval of the President and Trustees, it would seem that an advanced course in Geology might be offered to those who desire to continue their study beyond the single year's course. For this an additional microscope or two are desirable, but not absolutely necessary. Accommodations for the most effective work are necessary, however, and these can not be obtained in the present building, which is already too much crowded for comfort, and is, on the whole, about as

badly adapted for geological work as could be imagined. A dark room should be available for crystallographic measurements and for the use of some kind of projecting apparatus, by means of which the student could be brought face to face with the object under discussion, and thus be made to realize fully the force of the instructor's descriptions.

How best to meet all these seemingly numerous requirements, it is not my province to determine. I have merely stated what to me seem necessary, to do the work for which the University is intended. Room is needed, and more conveniences. Apparatus and geological material are necessities; without them nothing can be done.

One more point. In addition to the instruction of students in the rudiments of the higher branches, it should be the aim of the University constantly to aid in the addition of a little knowledge to that which the world already possesses. An instructor who carries on an investigation, even if it be of but slight value, is just by so much better than if he were content to accept the results of others without questioning and without understanding. It is with this short preface that I introduce a request for a suitable microscope and other apparatus for the prosecution of original research. The subjects already at hand bid fair to yield results which will be of some little interest to the scientific world, provided they can be continued to an issue. It is in this hope that I ask aid. Without it from the college, I should be compelled to seek it elsewhere. With it, some work may be done which will be of service to others who shall follow in the same line.

Appended will be found a list of the apparatus necessary for carrying on the work as indicated above.

Respectfully submitted,

W. S. BAYLEY.

Waterville, June 11, 1888.

APPENDIX.

APPARATUS NECESSARY FOR PLACING LABORATORY IN WORKING TRIM.

Fuess, microscope with apparatus	\$300 00
Smaller working microscope	100 00
Cryst. opt. universal-apparatus.	175 00
100 thin sections of typical minerals	42 00
Pair Iceland spars	15 00
470 specimens of rocks	110 00
Thin sections of above	160 00

Cutting and slicing machine	75 00
Iron plates for same	5 00
Glass plates for finishing	3 00
Chest with mounting materials	6 00
Mounting table	5 00
Object and cover glasses	15 00
Glass crystal models	25 00
Specimens of pleochroic minerals	15 00
30 specimens of twinned crystals	20 00
100 loose crystals	17 00
30 pseudomorphous minerals	17 00

	\$1105 00

An additional \$150 would place the mineralogical cabinet in good working order.

Report of the Gymnasium Work.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:—

The past college year has witnessed the first serious attempt here at Colby to provide for the students opportunities for that regular and systematic exercise which all physiologists recognize as a prime necessity in the maintenance of perfect health. As a first attempt, it has been something of an experiment, the nature and results of which it is now my endeavor to show.

That a gymnasium conducted in the manner that obtained almost universally until very recent years, may be productive of benefit, is unquestionable, but the possibility of harmful results is as unquestionable, and the balance to be drawn is not always greatly to the credit of the gymnasium. Something more than this doubtful benefit, however, is now expected of a gymnasium. The college gymnasium should not only furnish means of exercise to those already physically vigorous, but the weak and inapt, the physically defective, should be especially provided for, if a college is to fulfil its whole duty in fitting students to meet the demands of later life. To provide for securing all those benefits which the gymnasium is capable of producing, the system of Dr. Sargent of Harvard has come into very general use among the leading colleges of the country.

This system calls for a complete physical examination of each indi-

vidual, comprising not only the most important bone and muscle measurements, but also lengths and breadths of various parts, and tests of the strength of various groups of muscles. Points in the personal history and general characteristics also being recorded, the examiner is then in possession of valuable information regarding the individual. These measurements and strength tests thus taken are then plotted upon an Anthropometric Chart, a line being drawn which shows very clearly the relations of the measurements to each other and to the measurements of the normal man. The examiner, having his chart before him, then proceeds to make his prescription of the gymnastic work most suitable. Has the man examined a lopping shoulder, a weak chest, a thin arm, it has been recorded, and the record lies before the examiner as he makes out his prescription. This is effected by the use of a handbook containing a large number of exercises on the special developing appliances, supplemented by considerable advice on the subjects of dress, diet, clothing, etc. Thus, under this system, the man enters the gymnasium fully informed as to what he should do, and the dangers of the old system are practically avoided altogether. It is apparent that the expense of considerable time and care in making the examination is a prime requisite for its application, and that without a suitably fitted gymnasium its advantages are very much reduced.

In the main, this system has been followed in the gymnasium work of the college this year, but only for a short time has it been possible to make a complete application of it. A complete physical examination of each student was made at the beginning of the fall term, but the information thus acquired was of no practical value while the condition of the gymnasium remained as it then was. The lack of apparatus has been remedied in part by the addition from time to time of developing appliances, until the gymnasium now possesses the most essential machines. The apparatus that has been procured is of the finest model and best construction, and the outlay of perhaps one hundred dollars more would make the gymnasium all that is to be desired in this respect. The addition of the new machines serving to make the general dinginess and dilapidation of the gymnasium interior all the more unpleasantly conspicuous, masons and painters were set at work and a most gratifying change in the attractiveness of the place effected. A most important work of renovation was the removal of the battered bowling alleys and the construction of temporary lockers which now occupy the space thus left vacant.

Classes for gymnasium work were daily conducted during the fall

term, but it became manifest that the system of optional attendance then in vogue could not be depended upon to produce the wished for results. In fact, those men who were shown by the examination to be the weakest and most in need of special training absented themselves most often, and thus the main end of the gymnasium was in a measure defeated.

With the winter term, the only satisfactory system, that of required attendance at a fixed number of exercises a week, was decided upon. Under this system the work of the gymnasium progressed very favorably; the enthusiasm of the students, considering the circumstances, seeming quite remarkable. Required gymnastics were continued during the first four weeks of the summer term; at the end of that time, the weather again permitting out-door sports, attendance became voluntary.

Our trial of the compulsory system proves that it can be successfully carried on; its success, however, depends very largely upon the enthusiasm and interest existing among the students. To maintain these at the proper pitch of intensity, various changes in the gymnasium were absolutely necessary.

It is of first importance that some new mode of heating be adopted; the stoves having proved entirely powerless to keep the temperature comfortable during the winter.

Of scarcely secondary importance is the introduction of shower, tub, and sponge baths. The bath is equally important with exercise in hygiene, and it is only when facilities for both exist in the gymnasium that it can be considered complete. Suitable dressing rooms are, of course, necessary adjuncts to the baths.

The claim which the young ladies of the college have to a share in the opportunities for physical training afforded by the college, was substantially recognized at the beginning of the fall term, by the establishment for them of a class for regular exercise. This class has been continued through the greater part of the year, four half hours a week being given to it during the fall and winter terms, and three half hours during the summer term. Though a complete innovation it has seemed to meet with as much success as could fairly be expected. The hindrances to a full realization of the benefits of gymnasium work have been greater with them than in the case of the young men.

The only hour suitable for the class was that just before a recitation and this fact undoubtedly contributed to lessen the attendance. Various reasons prohibited the use of the gymnasium costume, which is an important feature in all gymnasium work. About fifty per cent. of the

lady students have taken the exercise regularly and the enthusiasm for the work that has been evinced leads me to believe that were better facilities afforded, very general attendance would result.

Other means of obtaining a proper amount of exercise being largely wanting to them, the gymnasium becomes of double value, and I should expect the gymnasium exercise to exert a very marked and satisfactory influence on their general health. The experiment of conducting their classes in the gymnasium used by the men at other times has shown that it can be done with advantage.

With the addition of suitable conveniences, I am confident that an important work can be done in this branch of the department. A suitable locker room in the gymnasium would very greatly enhance the interest in the work, and make it possible to secure the most gratifying results.

In addition to those changes in the gymnasium already mentioned as desirable, an examination room for convenience in making the physical examinations should not escape consideration. Carrying on the examinations in a college room, as has been done this year, is subject to many disadvantages, and ought not to be continued.

All the features thus far mentioned as desirable can be secured by making an extension to the present building, but in view of the many modifications that would be necessary, it seems to me an open question whether it would not be better to assign the gymnasium to fill some of the wants constantly arising in the numerous departments of the University and to construct for a gymnasium a building especially designed and adapted in all respects for gymnastic purposes; one that would meet all the wants of the institution for years to come and be a continuous source of honor to it. Other colleges are fast coming to recognize the demands of their students by the construction of new gymnasiums, which, in the eyes of the critical sub-freshmen, are likely to far outweigh our present humble structure, however it be modified or improved.

The annoyances which necessarily attend holding the annual Field Day sports at the town Driving Park are very obvious. Not only does the distance of the park from the college grounds interfere with the training that the contestants should go through with, and also with the attendance at the contests themselves, but very often, the condition of the track, never favorable, is altogether unfitted for any contests of speed whatever.

These athletic sports have a most important part to play in physical

training, and no opportunity should be lost of encouraging and favoring them. The construction of a quarter mile track upon one end of the campus is the one thing that would meet all our wants in this direction. No great expense need be incurred, and the opportunity for doing the work now in connection with the other campus improvements seems most favorable. The impetus given to out-door exercises by the possession of such a track would be of inestimable value in supplementing the work done in the gymnasium during the winter months.

The anthropometrical work has furnished a mass of statistics that has been used in various ways. The measurements were first averaged by classes and then grouped together in a general college average. Each average has been charted upon the Anthropometric Chart and thus opportunities afforded of comparing the students here with those of other institutions where similar average has been constructed. The average, if computed yearly, will furnish interesting data in regard to the general growth and development from year to year, and be a basis for many interesting deductions. As the mass of statistics increases, general tables can be made out that will be of great value as a guide in judging the physical capacity of the individual.

Each class will be examined at the beginning of the college year and Seniors and Freshmen will be given an additional examination in the

	Sept. '87.	May, '88.	Gain.			Sept. '87.	May, '88.	Gain.
Age,	19.8	20.4	.8m.	Girth L. Forearm,		26.1	26.4	.3
Weight,	60.4	62.5	.2	“ R. Wrist,		16.4	16.7	.3
Height,	172.	172.3	.3	“ L. “		16.3	16.5	.2
“ Knee,	44.8	45.	.2	Depth—Chest,		18.8	18.8	.0
“ Sitting,	90.5	90.7	.2	“ Abdomen,		19.8	19.	-.8
“ Pubic Arch,	86.4	85.9	-.5	Breadth—Head,		15.2	15.1	-.1
“ Sternum,	140.4	140.4	0	“ Neck,		10.7	10.8	.1
Girth, Head,	56.4	56.8	.4	“ Shoulders,		41.6	41.1	-.5
“ Neck,	33.8	35.4	1.6	“ Waist,		26.3	26.4	.1
“ Chest,	84.2	87.9	3.7	“ Hips,		31.9	32.	.1
“ full,	89.2	92.6	3.4	Length, R. Sh. Elbow.		37.1	37.2	.1
“ Waist,	71.7	72.5	.8	“ L. “ “		37.1	37.2	.1
“ Hips,	88.7	90.6	1.9	“ R. Elbow Tip,		46.6	46.6	.0
“ R. Thigh,	50.4	52.5	2.1	“ L. “ “		46.5	46.6	.1
“ L. “	50.1	52	1.9	“ R. Foot,		26.	26.1	.1
“ R. Knee,	35.3	35.9	.6	“ L. Foot,		26.	26.1	.1
“ L. “	35.3	35.8	.5	Stretch of Arms,		178.8	179.8	1.0
“ R. Calf,	33.9	34.8	.9	Capacity of Lungs,		255.1	264.1	9.6
“ L. “	33.9	34.7	.8	Strength—Lungs,		15.2	15.1	-.1
“ R. Instep,	23.9	24.1	.2	“ Back,		135.1	162.6	27.5
“ L. “	23.9	24.	.2	“ Legs,		171.5	26.2	90.5
“ R. Up. Arm,	28.8	30.	1.2	“ Chest & up. arms,		58.6	82.	23.4
“ L. “ “	28.4	29.5	1.1	“ Forearm,		37.1	43.4	6.3
“ R. Elbow,	24.9	25.8	.9	“ Total,		417.5	558.6	141.1
“ L. “	24.9	25.6	.7	Development,		486.7	500.7	14.0
Girth—R. Forearm,	26.4	26.8	.4	Condition,		69.2	59.5	128.7

spring; the Seniors, that the full growth during four years here may be noted, and the Freshmen, that the changes coming during the first year of student life may be especially learned.

The table given on the preceding page shows what has been effected this year by the Freshmen. The gains in lung capacity and in strength generally seem almost remarkable, inasmuch as the full benefits of the gymnasium were enjoyed for but a short time, comparatively speaking.

In the table, weights and strength tests are given in kilograms, the remaining measurements in centimeters.

In conclusion, I repeat that this has been the experimental year, and its results are only a prophecy and earnest of what may be expected when the work becomes firmly established.

With a continuance of the co-operation of the Faculty and authorities of the college in the work of the gymnasium, that has been noticeable this year, it may be predicted that this department in the future will exert no small influence in that rounded and complete training that the college aims to give.

Respectfully submitted,

CHARLES E. ADAMS.

Waterville, June 20, 1888.

Report of the Librarian.

TO THE PRESIDENT AND TRUSTEES OF COLBY UNIVERSITY:—

The number of volumes added to the library during the past year is 864, which is three less than were received last year. The appropriation for the purchase of books was only sufficient to add 193 volumes, after paying for the necessary binding and for the periodicals taken by the library. By exchange 22 volumes were received, and 82 were added by binding magazines and reviews. The remaining 567 were received by gifts from various sources. The principal donations were 139 volumes from the library of the late Rev. W. H. Shailer, D.D., presented by the family, and 109 volumes from the late Rev. E. Nugent, a part of which were given just before his decease. The additions to the series of Congressional documents deposited in the library number 119 volumes.

CIRCULATION.

The number of volumes loaned during the academic year, to students alone, is 4715, being 932 in excess of the number issued last year. As

there has been in attendance almost exactly the same number of students, this increase in the use of the library is gratifying and suggestive. It is to be borne in mind that these comparatively small figures represent mainly reading taken in connection with college work, and not for amusement and relaxation, which the large percentage of fiction drawn from all public libraries shows to be the case elsewhere. Every undergraduate makes use of the library, and the freedom of access to the books which is granted, has been appreciated and not abused.

The library has also been largely drawn upon by the professors, some of whom have found occasion to use in their work a large number of volumes.

The alumni, clergy, and teachers in the vicinity of the college, have been assisted by the privileges of the library, while a few volumes have been loaned to persons at a distance, having been sent as far as Colorado and safely returned.

CHANGE OF CLASSIFICATION.

With the increase of the library there has arisen the need of a closer classification than formerly. As soon as the Dewey or Decimal Classification had been revised I began applying it to the volumes which occupy the second floor of the library. The winter vacation was entirely devoted to this work, and it has been continued in such time as could be spared since, until a large part of that portion of the library is now minutely classified. It is proposed to continue this important labor through the coming year, or until the upper section of the library has received the new classification. The work is slow, requiring great care and special training, but when once accomplished it will be permanent and adjustable to any future growth of the library, however extensive.

EXCHANGES.

In response to circulars received from the document division of the Interior Department, our duplicates of certain kinds of government reports have been returned to Washington to be sent out again to libraries not possessing those volumes. The department has also supplied many deficiencies in our sets of U. S. documents.

DUPLICATES.

The library possesses about 1000 duplicates of books, acquired mainly by donations at different times, and for which there is no present use. The shelf-room they occupy is wanted for other books. If sold,

they would bring very little, yet there may be libraries or individuals to whom they would be welcome, or who would offer acceptable books in exchange for some of them. If there is no objection, I would like to dispose of these duplicates in the manner indicated.

GIFTS FROM ALUMNI.

Several of the Alumni have kindly remembered the library with gifts of books at various times. Donations from former students may be regarded as expressions of gratitude for the benefit derived from the library and are welcomed with twofold pleasure. The name and class of the donor are printed on a neat label which is attached to each volume thus received. Every gift is also recorded in the Accessions Book.

From Everett Flood, M.D., class of 1879, a gift of \$250 has lately been received, for the library, as a re-payment of the amount received by him from the scholarship funds while a student. This is the largest gift of the kind which has been made during my term of office.

The Board will appreciate the sentiments which have prompted this offering, and the librarian will give especial welcome to any who may do likewise.

PROTECTION AGAINST FIRE.

While the isolated position of the library renders very slight the danger from fires occurring outside, there yet exists a source of danger which should receive attention. In the cellar beneath are two furnaces for heating the library, and the space not occupied by fuel, is generally filled with tables, desks, small lumber, and other inflammable materials. If this state of things must continue a fire-proof floor should be laid at once. Extra security for valuable and rare papers and books might be had by providing a large safe, or converting an alcove into a fire-proof chamber.

URGENT NEEDS.

The need of a generous endowment of the library was never more strongly felt than at this time, when, with new departments and additional professors, the field of instruction has been so much extended. With a small annual appropriation, which any single department is eager to expend for its own books, it is difficult for the library to meet the growing demands upon it. A dozen departments are clamoring for an expenditure of from \$50 to \$500 each, in the purchase of books and periodicals for their respective work. The general library puts in as large a claim as any, for the acquisition of general works essential to its

usefulness. At least \$250 should be expended in binding, and \$50 for such assistance as may be employed.

The most liberal appropriation which the Board may feel authorized to make for the ensuing year, will be economically and profitably invested in the purchase of such works as are required in the various departments of instruction.

Respectfully submitted,

EDWARD W. HALL, Librarian.

Waterville, June 21, 1888.

APPENDIX.

LIST OF DONORS, 1887—1888.

This list does not include the societies and institutions with which reports are regularly exchanged. Donors of pamphlets will be reported hereafter.

<i>Names.</i>	<i>Volumes.</i>
American Sabbath Tract Society	7
Andrews, Prof. E. B., D.D	1
Berry, Ira, Grand Secretary	5
Boardman, S. L	1
Bolton, C. E	1
Boston, City of, Records Com	1
Burgess, G. C., City Clerk	17
Burrage, H. S., D.D.	13
Cornish, L. C., '75	1
Dexter, Mrs. J. D	1
Drinkwater, Mrs. R. E	1
Duren, E. F	1
Green, Hon. S. A	4
Hale, Hon. Eugene	10
Hanson, Rev. C. V	9
Harvard University	1
Harvard Observatory	1
Koopman, H. L., '80	1
Ladies' Calhoun Monument Association	1
Lapham, Dr. W. B	24
Lombard, Dr. J. S	1

<i>Names.</i>	<i>Volumes.</i>
Luce, Hon. N. A	2
Maine, State Librarian	21
Manning, P. C., Committee of Free Street Baptist Church, Portland, .	1
Mathews, Mrs. J. B., for Shailer family	139
Mathews, Prof. Shailer, '84	2
Maverick National Bank	1
Meleney, C. E., '76,	1
Milliken, Hon. S. L	3
National Association of Wool Manufacturers	1
New Jersey, State Librarian	1
Nugent, Rev. E	109
Ricker, J., D.D., '39	20
Romero, Hon. E	1
Royal Observatory	1
Royal Society of Canada	1
Shedd, Mrs. Julia A	2
Skinner, F. F	1
Small, Prof. A W., '76	1
Smith, Dr. C. D., '77	1
Smithsonian Institution	1
Soule, Allen P., '79	3
Thayer, Dr. F. E	1
Thompson, Mrs. Elizabeth	1
United States, Interior Department	119
" " Navy " 	2
" " Treasury " 	1
" " War " 	7
" " Commissioners and Bureaus	35
Washington Observatory	1
Winchell, Prof. N. H	1
Wood, Dr. Robert W., '29	3

